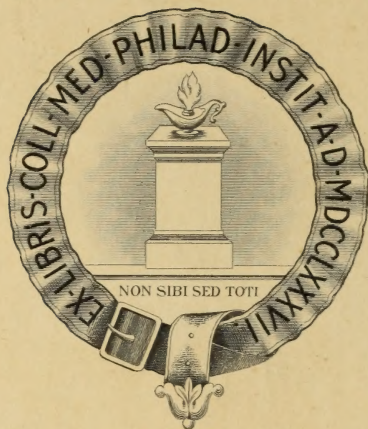




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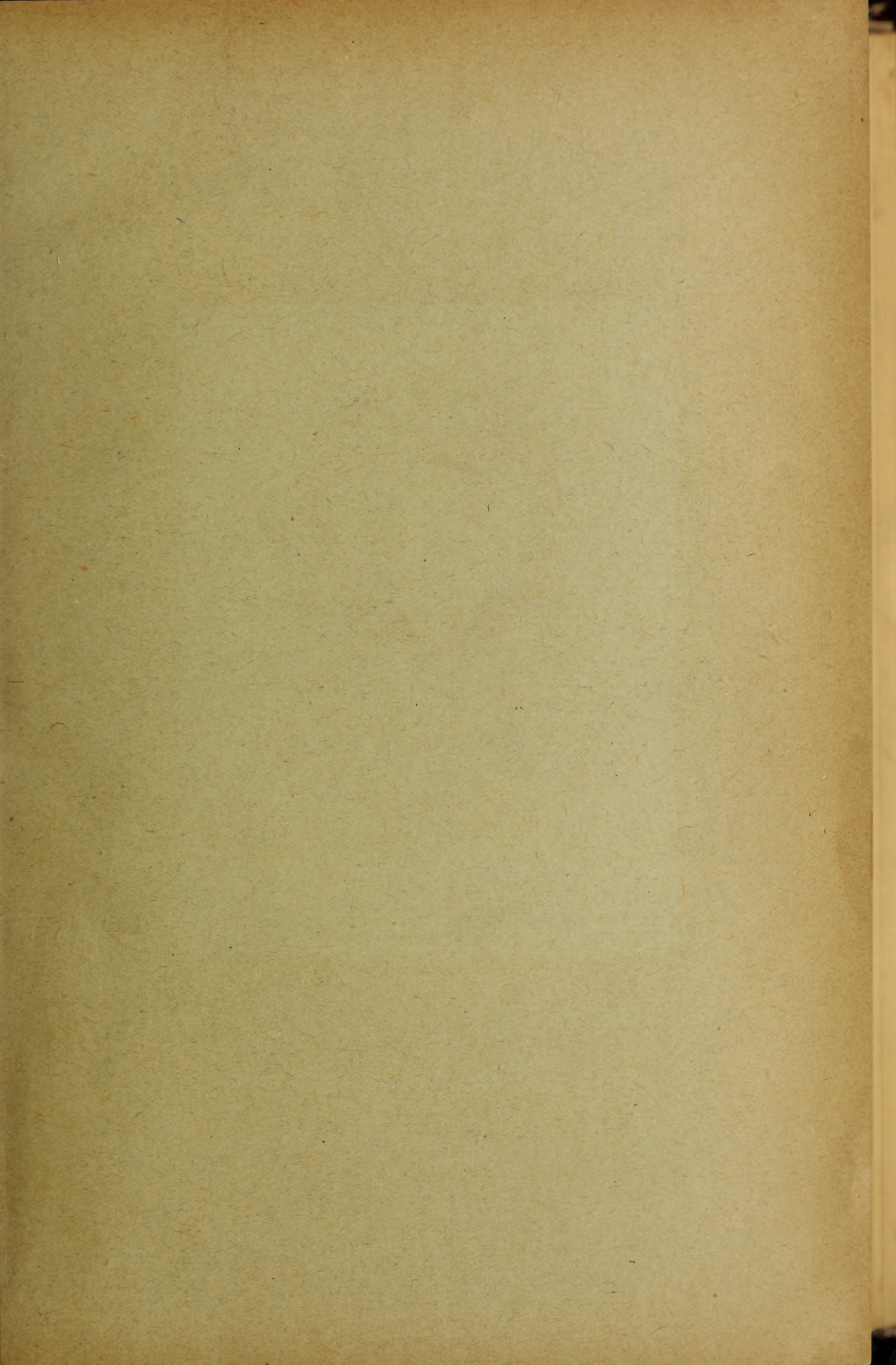



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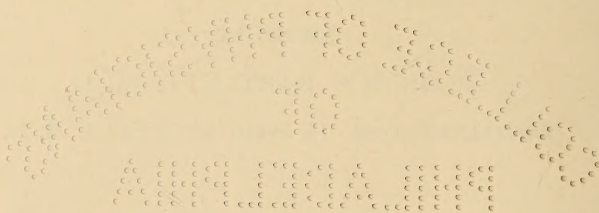
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THE CONTRIBUTIONS OF HOMŒOPATHY TO CLINICAL MEDICINE.

BY

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(Read before the Homœopathic Medical Society of Pennsylvania, at Harrisburg, Pa.)

CLINICAL medicine, as we find it to-day, is the growth of more than twenty-five centuries of medical experience. From the time of Hippocrates down to the present hour an innumerable multitude of men have endeavored with all the energy of their natures to search out the causes of disease and to wrest from the hand of reluctant Nature the secret of their cure. As generation after generation of the coral insects by their growth and death gradually build up, from the depths of the unknown deep, fertile isles for the habitation of man, so generation after generation of medical men have contributed their portion of useful knowledge and died, until we see the noble structure of modern medicine rising out of the mists of antiquity and of uncertainty and becoming the joy and hope of mankind wherever sickness or suffering is found.

While we may well pause for a moment to bestow a word of praise upon Hippocrates and Galen and Harvey and Pasteur, and upon all of those, both remembered and forgotten, who have laid the results of their thought and energy upon the altars of humanity, it is my especial purpose to-day to bring to your attention the contributions that Hahnemann and his followers have made to clinical medicine.

Surely no one can review the history of the medical art without being deeply impressed with the profound effect that the teachings of Hahnemann have had both upon the theory and upon the practice of modern medicine, especially upon the highest department of all the medical art, namely, therapeutics. And yet, gentlemen, I am sorry to say that the eminent Dr. Osler, in a comprehensive review of the "Evolution of Medicine" in the first volume of his recent system of "Modern Medicine," fails even to make mention of the name of Hahnemann or of homœopathy. No better example of how unjust prejudice can narrow the perspective of an otherwise liberal-minded man could well be cited.

The effect of homœopathy upon modern medicine may be conveniently discussed under two headings: (1) Negative or destructive influence. (2) Positive or constructive influence.

1. *The Negative or Destructive Influence of Homœopathy.* In order to understand clearly the destructive influence exerted by homœopathy upon the errors of traditional medicine it is necessary to recall the state of medical practice prior to Hahnemann's day. To the mind of the modern physician the methods of treatment generally employed by medical practitioners during the eighteenth century can only be described as appalling, and it is no wonder that Ameke commenting on the therapeutic methods of that day says: "There are few diseases of which one can say that the physicians of that day did no harm." All therapeutic procedure was based upon certain mistaken theories of disease and as each new "authority" had a new theory to propound, it can readily be seen that systems of treatment appeared and vanished with great rapidity. For example, one of the most prominent authorities prior to Hahnemann's time was Kampf (1726-1789), who alleged that most diseases have their seat in the abdomen and are due to "infarcts." By "infarcts" he meant a condition of the large abdominal blood vessels, in which they "are plugged and distended by ill-concocted, variously degenerated, fluid-bereft, inspissated, viscid, bilious, polypous and coagulated blood. . . ." As examples of the diseases these infarcts may cause he cites epilepsy, cataract, deafness, consumption, cancer, fever, dropsy, etc. Kampf's system of treatment, based upon the above mentioned theory, of "infarcts," consisted principally in the persistent use of clysters and emetics. One of his followers states that he had treated many sick persons who required

more than five thousand clysters before they entirely got rid of the infarctus. Toward the close of the eighteenth century the system of John Brown, a Scotchman, began to be widely employed. Brown believed that he had reduced medicine to a true science. According to his theory every human being was possessed of a greater or less degree of irritability. Health depends upon the possession of just the right amount of irritation. Diseases were divided into sthenic, characterized by too much irritation, and the asthenic, characterized by want of irritation. In the sthenic diseases "irritation diminishing" measures such as bleeding, cold, emetics, purgatives and diaphoretics were employed. In the asthenic diseases the most efficient remedies were meat, heat, ammonia, musk, camphor and especially opium. In the treatment of typhus fever, for example, the Brownians gave 10 to 12 drops of tincture of opium every 15 minutes until sleep was produced, when the dose was to be doubled and was then to be gradually increased "till the health of the patient could be maintained by less powerful stimulants."

The two examples I have cited represent the most advanced and most "rational" systems of medicine of Hahnemann's day. Numerous other methods of treatment much more harmful and visionary had enthusiastic followers among the profession but however widely they differed in their theoretical foundations, they all agreed as to the practical value of nauseating and drastic compounds, and of bleeding, leeching, blistering and other similar procedures calculated to make the patient as miserable as possible.

Such was the condition of the medical art when Hahnemann promulgated his principle of drug selection and condemned the accepted therapeutic methods of his day as being in the main useless, dangerous and harmful. The storm of invective and criticism that broke over the head of this would-be reformer is hard to understand until we realize that Hahnemann denied the efficacy of methods that had been accepted without question by physicians since the days of Galen and Paracelsus, and it seemed to the orthodox practitioner of that day that he was attempting to demolish the very foundations of the medical art. The fight became bitter and sharp. Those who had bled and purged and blistered returned to their task with renewed vigor, determined to demonstrate by the superiority of their results the fallacies of homœopathy. But unfortunately for the

success of their efforts they forgot that "time obliterates the fictions of opinion and confirms the decisions of nature." Gradually, but surely, the fallacies of the old system gave way and were replaced by the milder and more effective therapeutic procedures of modern medicine. All through this struggle, lasting as it did for more than half a century, the homœopathic school persistently and forcefully opposed the following fallacies which they have finally succeeded in disproving to the satisfaction of every scientific physician.

1. The fallacy of attempting to force nature to a cure of disease by dangerous and drastic drugs.

2. The fallacy of indiscriminate blood-letting, purging, etc.

3. The fallacy of the general rule that the best therapeutic results are obtained by giving a patient the largest possible dose of a drug without causing dangerous toxic symptoms.

4. The fallacy of combining several drugs in a single prescription.

2. *The Positive or Constructive Influence of Homœopathy.*

Many practitioners of the dominant school of medicine, especially those who are inclined to be fair-minded, are willing to admit the negative influence homœopathy has had upon medical practice, but they add that it has never made any positive contribution to medicine. We might reply that he who demonstrates the fallacy of a previously accepted truth contributes as much to science as he who discovers a new truth. But we have a better and more satisfactory reply, namely, that to the homœopathic principle can be traced not a *few* but *most* of the advances in drug therapeutics that have been made during the past hundred years. We will not waste words in needless discussion but let us look directly at the facts.

First, Hahnemann instituted the only scientific method of ascertaining the exact effects of drugs upon the human organism, namely, by administering them to healthy human beings and noting the symptoms and conditions produced by them. It is true, as certain detractors of Hahnemann have attempted to emphasize, that prior to his time Cullen, Haller and a few other physicians had conceived of some such idea and had even put it into practice in one or two isolated instances, but I challenge any fair-minded man to deny or to disprove that Hahnemann was the first medical practitioner to make the proving of drugs on the healthy human being a systematic study. Not only is this true but so far was Hahnemann ahead of his times

that it was fully fifty years after his first provings were made that the dominant school of medicine began to realize the importance of this method of studying drug action and even to-day its full possibilities are not generally recognized.

Secondly, Hahnemann and his followers established the importance of dietetic and hygienic measures in the treatment of the sick. It is true that such measures had been known and utilized by physicians from time immemorial but so imbued had the profession during Hahnemann's time become with the idea that bleeding, purging, stimulating, etc., were the essential and only successful methods of combating disease that dietetic and hygienic measures were relegated to the rubbish heap and had practically become a lost art. It remained for Hahnemann to restore to their merited place in the treatment of the sick these valuable adjuvants to the therapeutic art, and so carefully and successfully did he employ dietetic, hygienic and hydrotherapeutic methods that his enemies, denying the possibility of any therapeutic effects from his remedial agents, attributed his surprising success to the nursing and care which his patients received. After all human nature is the same yesterday, to-day and forever. History, we are told, repeats itself and how often do our old school friends to-day explain away our successes in the same manner.

Thirdly, homœopathy has contributed to modern medicine a large number of useful remedies and has defined and enlarged the field of usefulness of almost every known drug.

Among the remedies that have been introduced into medicine by Hahnemann and his followers may be mentioned:

Apis mellifica.	Lachesis.
Calcarea fluorica.	Mercurius sol. Hah.
Causticum.	Platinum.
Coffea cruda.	Psorinum.
Glonoine.	Sepia.
Hepar sulphuris calcar.	Spongia.

Tuberculin and numerous other nosodes (particularly important because they were the forerunners of the modern opsonins.)

The number of remedies of non-homœopathic origin whose modern uses have been developed and defined by homœopathic methods is almost endless. Among the most important are:

Aconite.	Cina.
Actea racemosa.	Colocynth.
Aesculus.	Conium.
Agaricus.	Cuprum arsen.
Allium cepa.	Cuprum met.
Aloes.	Drosera.
Ambra.	Dulcamara.
Anacardium.	Gelsemin.
Apocynum.	Hydrastis.
Arnica.	Ipecac.
Aurum.	Iris vers.
Baptisia.	Nux mosc.
Belladonna.	Phosphorus.
Benzoic acid.	Pulsatilla.
Bryonia.	Rhus tox.
Calcarea card.	Sanguinaria.
Calcarea phos.	Spigelia.
Camphor.	Thuja.
Cantharis.	Vertrum alb.
Chamomilla.	Zinc.

So far has homœopathy permeated the therapeutics of the dominant school that Dr. Dyce Brown, in an address before the British Hom. Assoc. in 1902, found that seventy-one of the remedies they commonly employ were largely used on the principal of similars. Among this list are found :

Arsenic.	Mercury.
Antim. tartaricum.	Nux Vomica.
Digitalis.	Podaphyllum.
Hyoscyamus.	Turpentine.
Ipecac.	Sulphur.

Fourthly, homœopathy has contributed to modern medicine the only principle of drug selection that conforms both to the strict requirements of modern science and to the practical needs of the physician at the bedside.

I have said that the homœopathic principle of drug selection meets every requirement of modern science. Let me present some of the facts that substantiate this statement. The principle laid down by Hahnemann, briefly stated, is, that in the treatment of the sick we are to administer the drug capable of producing symptoms similar to those from which the patient is suffering, and as a natural corollary to this he stated

that the dose in which the remedy is to be given should be the smallest that would give the desired result.

The results of modern biological research absolutely confirm both of these propositions, and in a much wider sense, perhaps, than even Hahnemann conceived of or than most homœopathic practitioners of the present day are aware. The human organism, biology tells us, is composed of an incalculable number of protoplasmic cells. One of the fundamental properties of protoplasm is its ability to react to stimuli, whether thermal, electrical or chemical. "Weak stimuli kindle life activity, (I am quoting now from one of the fundamental biological laws laid down by Rudolph Arndt) medium stimuli promote it, strong impede it, and the strongest stop it." This is a complete and direct corroboration of the postulate of the homœopathist that an agent that can destroy a cell is capable of stimulating it if administered in a sufficiently small dose. When we remember that bacterial toxins, as well as drugs, are included among the chemical irritant we realize that all the achievements of opsonic and bacterio-therapy, as well as the healing powers of drugs, are fully and logically explained under the homœopathic law.

If corroborations of these views from allopathic sources are demanded I will cite the following quotations from a lecture by Professor Dr. Hugo Schulz, of the University of Greifswald:

"Every circumstance that disturbs the physiological equilibrium of a single cell, or of a large commonwealth of cells, of an organ or of an organism, acts as a stimulus."

"The practical application of drug power deals with organs and organisms affected with disease. They are able to react to stimuli that could scarcely be perceived under natural circumstances of complete health."

"The medicine must be rightly chosen. It must be the one to arouse from the diseased organ the most definite reaction possible under all the existing circumstances."

"Before a drug can be used at the bedside at the fullest advantage, it is absolutely necessary previously to interpose the experimental use of it on healthy individuals."

Dr. C. P. Wheeler, from whose interesting and valuable booklet entitled "Fools or Knaves," I take these quotations, adds, "It is bare justice to Dr. Schulz to state that he gives full recognition to Hahnemann."

My list of the contributions of homœopathy to clinical medicine would not be complete without mentioning that the Dudgeon sphygmograph, now almost universally employed by clinicians, was invented by Dr. Robert Ellis Dudgeon, for many years one of the foremost homœopathic practitioners of England. We can also state with feelings of satisfaction that both the father and grandfather of M. Curie, the discoverer of radium, were well known homœopathic physicians.

Fellow members of the State Society, in this brief address I have endeavored to refer briefly and superficially to some of the contributions homœopathy has made to modern medicine. Surely the record of our school has been a noble one. The benefits which homœopathy has conferred upon mankind can never be weighed in balances of human construction or calculated in terms of silver or gold. The fact that we have received no honor or credit from that body of medical men who have drawn so freely from our system of practice detracts not one iota from the glory or from the worth of homœopathy. Let us be content that we are the exponents and guardians of a system of therapeutics that has overthrown error, that has established therapeutic methods and principles that will endure through all time and that is fast permeating and supplanting every other method of drug therapy.

Despite the traditional antagonism of our opponents the discoveries of modern research are so rapidly confirming the correctness of the essential principles for which homœopathy stands, that a general recognition of this fact by all scientific physicians is inevitable. Until such recognition is given, to develop and to perfect the art of homœopathic therapeutics is our urgent duty; to extend the benefits of our system freely to medical practitioners and laymen of all schools and creeds is our wish and privilege; to guard the dignity of our principles and to preserve the legal and professional rights of practitioners of our school is our sacred trust.

A REVIEW OF SOME OF THE MORE IMPORTANT CLINICAL METHODS OF INTEREST TO THE PEDIATRIST.

BY

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(Read before the Homœopathic Medical Society of Pennsylvania, Harrisburg, September 23, 1908).

IN reviewing so broad a subject as clinical methods it will be impossible in a paper of this kind to do more than call attention to some of the phases of clinical diagnosis which appeal especially to the pediatricist. At the same time I shall endeavor to show that "laboratory methods," so-called, are by no means as complicated and difficult to carry out as is usually supposed, and that the physician who fails to employ them in his daily work is depriving himself of invaluable assistance.

Let us first consider the subject of *the urine*. Few physicians can be accused of neglecting to examine the urine of their adult patients, but in the case of children this is too frequently done on the ground that renal conditions are exceptionally rare. Granting this, it is equally true that the urine gives us valuable information in regard to conditions entirely outside of the kidneys, for example, metabolic disturbances and intestinal auto-intoxication. Again, many cases of cyclic albuminuria are overlooked by taking this stand, to say nothing of an occasional case of diabetes. The importance of examining separate specimens of day and night urine is exemplified in the case of cyclic albuminuria; here the urine passed after a night's rest in bed is negative while that passed during the forenoon, after being up and about may give a distinct reaction. The same may be said concerning the separate estimation of the day and night urine in regard to the amount passed. When the night output exceeds the day output we speak of a "nycturia" (Quincke). Such a condition indicates a grave circulatory disturbance in the kidneys and may be the first sign to call our attention to a hitherto unexpected heart affection, *e. g.*, adherent pericardium.

Albuminuria is relatively common in early life but actual nephritis is perhaps not so common as some clinicians are disposed to believe. Carefully conducted autopsies have shown that the presence of albumin and casts in the urine in childhood

does not so uniformly indicate nephritis as in the case of adults. Thompson (*Archives of Pediatrics*, May, 1908), did not find nephritis in a single instance in which albumin and casts were seen during life. The pathological changes are usually simple degenerative ones; exudation and proliferation are rarely encountered. On the other hand, slight or moderate degenerative processes and disturbances of circulation capable of producing albuminuria are very common.

The study of the ethereal sulphates, of which group indican is perhaps best known, is too often neglected. It is true that the indican represents but a fractional part of the total output of the conjugated sulphates of the urine; nevertheless it is a fairly good index of the degree of absorption of the products of intestinal putrefaction which are paired with sulphuric acid in the liver. Putrefactive processes outside the intestinal canal, for example, empyema, also cause indicanuria. The test I usually employ is as follows: Five cubic centimeters of hydrochloric acid, to which a few drops of nitric acid have been added, are mixed in a test tube with an equal amount of urine. A blue color reaction results and the indican may then be separated by shaking with chloroform. The rapidity with which the color develops is a fair estimate of the amount of indican present. The test for the ethereal sulphates is of little value unless a quantitative estimation is made.

The question of acetonuria is an interesting one. When the acetone bodies are present in appreciable amount we are confronted with a condition of acidosis, or acid autointoxication of the system. A compensatory increased ammonia excretion goes hand in hand with this acidosis. Unfortunately the quantitative estimation of ammonia in the urine requires both time and some technical skill, for which reason it does not lend itself to general use.

Acetonuria as a rule appears clinically in infancy in conjunction with intestinal disturbances caused by excessive fat feeding. This leads to secondary metabolic disturbances of which acetonuria is the clinical evidence just as glycosuria is the outspoken sign of a perverted carbohydrate catabolism. The mother-substances of acetone are oxybutyric and diacetic acids. It is probable that they are derived from the carbohydrate radical of the proteid molecule which is split as a result of deficient carbohydrate assimilation. Acetonuria therefore also

appears in inanition and in diabetes when a carbohydrate-free diet is persisted in.

Another possible source of the acetone bodies is the body-fat when this is oxidized in the absence of sufficient carbohydrate. Shaffer (*Jour. A. M. A.*, Sept. 19, 1908), points out the fact that fat individuals are comparatively poor subjects for typhoid fever and other infections in which increased oxidation takes place, and that in such cases acidosis is a frequent symptom.

The test for acetone must be performed while the urine is fresh, as this substance is volatile. To several cubic centimeters of urine in a test tube add an equal amount of freshly prepared solution of sodium nitroprusside, to which a drop of sodium hydrate solution has been added. The mixture becomes red and then rapidly fades. The addition of glacial acetic acid gives a purple color when acetone is present.

Diacetic acid is detected by adding neutral ferric chloride solution to the urine until the phosphates have been completely precipitated, filtering and again adding ferric chloride to the filtrate. A deep red color-reaction indicates diacetic acid. We should be certain, however, that the patient has not been taking salicylic acid or salol, as these substances produce a similar urinary reaction.

The Feces.—The examination of the stools is a subject that presents more difficulties and fewer practical results than almost any other clinical method. The bacteriologic examination requires expert technique and is rarely of clinical value. The microscopic examination for the ova of the various intestinal parasites and the test for occult blood are perhaps the two most important features in the study of the stools. Occult blood is not so common in children as in adults because it is more frequently associated with malignant disease than with any other condition. With tuberculous ulceration it is rarely associated, while in typhoid fever a hemorrhage is usually of sufficient magnitude to produce visible blood in the stools, although the presence of occult blood in typhoid fever is looked upon by some as a danger signal foretelling gross hemorrhage (Emerson). The test is performed as follows: Liquefy stool with water and extract the fat with ether: pour off the latter. To the remaining fecal matter add one-third of its volume of acetic acid and then extract again with ether. To this ethereal extract add an equal volume of an alcoholic solution of aloin

and then treat with ozonized turpentine or hydrogen peroxide. The reaction is a cherry red color. Guaiacum gives a blue reaction.

Gastric Contents.—For a rational understanding of gastric disturbances an analysis of the gastric contents is necessary, consequently a test meal must be administered. Milk cannot be used, owing to its affinity for hydrochloric acid. Barley-water or a broth made with barley or rice (strained) should therefore be prepared. As a rule, the meal should be withdrawn three-quarters of an hour after its administration; otherwise the stomach will probably be found empty. A soft rubber catheter with a piece of glass tubing inserted into one end will answer the purpose of a stomach tube. Having obtained the specimen, note its general appearance, the presence of curds from previous feedings; mucus; blood. The odor may suggest the presence of butyric acid.

Filter the sample, and if the filtrate gives an acid reaction with litmus make the following tests:

Free Hydrochloric Acid.—Add to a measured portion of the filtrate a drop of one per cent. alcoholic solution of dimethyl-amidoazobenzol, and titrate the mixture with deci-normal sodium hydroxide solution until the color-change from red to yellow indicates the end of the reaction.

Combined Hydrochloric Acid, Acid Salts and Organic Acids may be conveniently estimated together in terms of hydrochloric acid. This is accomplished by adding to the sample used in the above test a drop or two of an alcoholic solution of phenolphthalein and continuing the titration with the deci-normal alkali until the solution assumes a permanent faint pink tint.

Total Acidity.—This is determined by adding together the results of the tests for free and combined acid. The analysis is simplified and facilitated by making use of the author's acidometer. (See HAHNEMANNIAN MONTHLY, May, 1903.)

Absence of hydrochloric acid is found in true cases of marasmus and is of both diagnostic and prognostic value, as I have pointed out on a previous occasion. Lactic acid is usually found in association with other organic acids and occurs especially in cases of chronic indigestion from catarrh or gastric dilatation whenever there is a diminished secretion of hydrochloric acid. The test for lactic acid is known as Uffelmann's test and consists of a very weak watery solution of ferric chlor-

ide with a few drops of five per cent. solution of phenol added. The mixture is of an amethyst color. Lactic acid produces a canary yellow color-reaction.

The Blood.—A complete and elaborate blood examination is necessary only in special cases. There are, however, a few simple procedures in the study of the blood which are of immense practical value and without the use of which much of our practice becomes mere guesswork. Every practitioner should at least be able to determine whether or not a patient is actually anemic, for appearances are deceptive, and he should be familiar with the malarial plasmodium and understand the method of detecting it. A blood-count is not always necessary to determine the presence of leucocytosis, for when the white cells are markedly increased a properly prepared blood-smear reveals this fact to the experienced observer. Perhaps more important than any of these data is the differential count of the various cells present: I would here also include the detection of abnormalities in the size and shape of the red corpuscles and the presence of nucleated red cells. After one has familiarized himself with the appearance of the normal blood elements the abnormal cells are readily recognized.

The estimation of the percentage of hemoglobin, which is a fairly good index of the degree of anemia present, may be performed in a few minutes by the Talquist scale. This is a rough clinical test, not sensitive enough for following accurately the progress of a case from week to week, but of sufficient accuracy at least to determine the degree of anemia. Dare's hemoglobinometer is a convenient instrument requiring very little more time for making the test, and is sufficiently accurate to detect variations of a few degrees, such as we should expect to find in a case under treatment.

The leucocytes are best studied by making a smear and staining with Wright's or Jenner's stain. The smear is made by placing a drop of blood upon the end of a slide and then drawing the drop out into a thin film by means of another slide, the edge of which is placed in contact with the blood-drop and then evenly drawn along the surface of the opposing slide. When this film is dry the stain is applied for three to five minutes and the specimen is then ready for examination. The same method is followed in searching for the malarial organism.

The pathological changes found in the blood in infancy must be interpreted somewhat differently from similar conditions in

the adult. Not infrequently we will find in simple secondary anemias a leucocytosis and an abundance of abnormal cells, notably myelocytes, and yet we cannot call the condition a genuine leukemia. Unless there is strong corroborative evidence pointing to such a condition as leukemia or pernicious anemia we should always reserve judgment if we are required to base an opinion upon the blood picture alone. The important fact to remember is that there is a greater tendency to anemia in early childhood than in adults, intestinal autointoxication, intestinal parasites and rickets being prominent causes, and furthermore, that with the advent of anemia the blood shows a strong disposition to revert to the embryonic type, for which reason it is not unusual to encounter an excess of lymphocytes together with myelocytes and nucleated red corpuscles under these conditions.

Lumbar Puncture.—Since the introduction of Quincke's diagnostic method of lumbar puncture the diagnosis of meningitis has been lifted from mere guesswork to one of the clinical certainties. Furthermore the differential diagnosis between the various types of meningitis has been made very much easier and more positive.

The puncture is made with a small trocar or a large sized aspirating needle, inserting the same between the laminae of the third and fourth or the fourth and fifth lumbar vertebrae, in which region we can readily enter the dural sac without danger of injuring the spinal cord. An increased amount of cerebrospinal fluid verifies the presence of an inflammatory condition, and the appearance of the fluid, whether clear or turbid, speaks for the existence of a serous or tuberculous meningitis on the one hand and a meningococcic, pneumococcic or septic process on the other. For a further differentiation of these conditions, microscopic study becomes necessary.

The Sputum and Exudates.—The examination of the sputum is frequently neglected because of the belief that it cannot be obtained as it can in adults. Its mode of collection, however, is quite simple. Long before physical signs can be positively demonstrated the sputum may contain tubercle bacilli in great numbers and it would have been a simple matter to make an early diagnosis had we but followed the proper course. If a child have cough, fever and progressive loss of weight extending over a period of weeks, we should swab the throat at the close of a coughing paroxysm and stain the expectoration thus

obtained with carbol-fuchsin, decolorizing with twenty-five per cent. nitric acid and counterstaining with methylene blue. The best method of obtaining the sputum is to fix a bit of surgeon's gauze in the jaws of an artery clip and pass it well down into the pharynx.

Pleural and peritoneal exudates should also be studied carefully as they throw much light upon the nature of the condition which has produced them. A low specific gravity (under 1015), speaks for a simple transudate; inflammatory exudates are high in specific gravity and contain considerable albumin. The preponderance of polynuclear or mononuclear cells also throws some light upon the case.

Purulent exudates should also be stained both with carbol-fuchsin and by Gram's method. The latter stains the pneumococcus, being positive also for the ordinary pyogenic micro-organisms.

ACNE.

BY

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I HAVE chosen the subject of acne, first: because it is the most common disease involving the skin with the exception of eczema, and second, for the reason that it is generally regarded by the profession as a harmless condition.

Then, too, the patient is often assured that it is a necessary evil to the full development of adult life, while complete recovery with the restoration of a perfectly normal skin is only a question of time.

This is altogether too rosy a prognosis as I shall endeavor to show you.

It cannot be denied that a certain percentage of cases follow just this course, but it is also true that a much larger percentage develop along entirely different lines.

The majority of acne cases slowly progress, going from bad to worse until the time comes when scarring and disfiguring take place as a result of tissue destruction.

This usually extends over a period of years until finally such radical changes have taken place in the skin that even under the most expert treatment it is impossible to entirely remove all traces of the disease.

To allow such a condition to develop shows gross neglect on our part, to say the least, when early and appropriate treatment would have avoided all disfiguring sequellæ.

In the further discussion of this subject, I am going to confine my remarks especially to acne as it appears on the face, although it may develop on the back, across the shoulders, and on the chest.

There are numerous varieties of acne, but I am not going to burden your minds with the name of each separate type, but instead will take up in their order three varieties, which from a clinical standpoint may be considered as distinct steps, or stages of the disease.

Each stage has its own distinct characteristic lesions and pathological changes.

The first stage which we will consider, then, is that type known as comedo.

This usually first appears at puberty, and is characterized by the development of minute black points or dots on the skin, which are commonly known as "black heads."

They consist of epithelial cells, dirt, and dried sebaceous material which has undergone certain chemical changes.

They are to be found in the patulous openings of the excretory ducts of the sebaceous glands, and are especially numerous on those parts of the face where the skin is well supplied with these glands.

The exact cause of this condition is not always easily determined, for there are many etiological factors entering into its development.

At times these cases are associated with an oily seborrhœa, which some authors claim is produced by the bacillus of Sabraud, while others are of a contrary opinion.

That this bacillus has nothing to do with the development of comedo is borne out by the fact that their presence has been demonstrated in normal ducts of perfectly healthy sebaceous glands.

Comedones are caused by a lowered vitality of the skin, due to some other disease such as chlorosis, chronic constipation,

dyspepsia and menstrual disorders, while other cases seem to be purely neurotic in origin.

In fact any condition which tends to produce alternate congestion and anemia of the face favors the progress of this disease.

As a result of this loss of tone the mouths of the sebaceous ducts become patulous and lose their elasticity so that the normal secretion of the glands is easily dammed back by dirt and debris.

Now, if we consider this black head as a foreign body, wedged in the duct, the next stage can be readily understood.

The irritation produced by this substance causes inflammation of the sebaceous duct, and the periglandular tissue resulting in a reddish elevated papule.

Usually this is quickly infected by the staphylococcus, the papule becomes a pustule with a yellow apex and then we have a full fledged acne vulgaris.

There may be only a few scattered papules and pustules over the face with here and there a comedo which represents a mild form of the disease, or these lesions may be very numerous, and may be accompanied by many large, hard, painful, deep-seated tubercles.

These tubercles really are minute multilocular abscesses caused by two or more neighboring sebaceous glands becoming diseased and while they look like one large papule, they really consist of a number of separate pus cavities.

They are especially resistant to treatment, and are prone to spontaneous rupture, with discharge of part of their contents only to recur.

After one of these multilocular abscesses has healed scarring or a slight port wine stain on the skin is the rule.

They are about the size of a split pea, elevated above the surrounding surface, and of a dark reddish color with a smooth, shining, rounded apex.

Usually they are accompanied by a marked degree of inflammation, but occasionally they are more sluggish in appearance, and can only be observed by passing the hand over the skin.

In acne vulgaris there is no characteristic grouping of the lesions, no matter how extensive the disease, but only those parts of the surface being especially involved which is well supplied with sebaceous glands as the nose, cheeks and chin.

Characteristic of this type are exacerbations and remissions extending over a period of years, and not until the full development of adult life is there a tendency in some cases for a spontaneous cure.

Should recovery not take place, and the disease continue, the next type is apt to develop, or acne rosacæ.

This is the result of long-continued inflammation causing congestion and passive hyperemia.

The circulation becomes impaired eventually leading to dilatation and hypertrophy of the capillary blood vessels, and sebaceous glands.

The main arterial trunk coming up from the corium is engorged and there is often a new formation of superficial blood vessels.

This process naturally involves the nose, but shortly extends to the cheeks and chin.

At first the disease appears only as a slightly reddened area of a transitory nature, and is more marked after exposure to extremes of heat and cold.

As it slowly progresses the redness becomes more pronounced, deeper in color and permanent.

There may be minute bright red lines scattered over this erythematous area and running in all directions which correspond to the dilated and engorged capillaries.

While the skin surface looks highly inflamed, in reality it is cold to the touch, and the redness may be made to disappear momentarily on pressure.

Subjective symptoms usually are absent. Rarely does the patient complain of slight itching and burning.

The course of this type is markedly influenced by the patient's general health, spontaneous recovery occasionally taking place, but after the pathological changes accompanying acne rosacæ are completed spontaneous recovery does not occur, hence the importance of early treatment.

Indeed complete recovery from a full-fledged, long-standing acne rosacæ, even under the most expert treatment, is a problem at best difficult to solve.

This brings us to the all-important question of treatment.

In the first place every case should be carefully examined in order to find the exact etiological factor, or factors, which may be responsible for its development in that particular individual.

The gastro-enteric system should be carefully gone over as

we know that in many cases digestive disorders and constipation play an important part in the etiology.

The diet should be regulated, only plain, wholesome, easily digested food being allowed, while the bowels should be kept active.

In general, pies, pastries, sweets, and all fatty fried foods are to be withdrawn. The use of tobacco, tea and coffee, and all alcoholic beverages should be interdicted.

Plenty of outdoor exercise is especially beneficial in those cases whose occupation compels a sedentary life.

If the patient's general health is below par, we should endeavor to build him up by the use of eggs and milk, while iron, arsenic and strychnia are useful for tonic purposes in the different forms of anemia, if prescribed in small doses.

Once or twice a week the patient should come to your office and have the papules and pustules and their contents thoroughly expressed by the comedo expressor.

In order to assure success, steaming and gentle massage or cupping of the face is first to be employed, then all large papules and pustules should be carefully incised with a sharp pointed knife and their contents completely evacuated.

The practice of squeezing a pustule between the fingers is especially harmful as it injures the neighboring sebaceous glands and ducts and keeps up the inflammation.

Following the emptying of the pustule, a compress wrung out of a cold solution of boracic acid should be applied before the patient is allowed to go out of doors, in order to restore the tone of the relaxed skin.

Between visits to the office local applications should be used, which can be applied by the patient at home.

These applications may be either in the form of an ointment or lotion.

The most valuable remedies in the external treatment of acne are sulphur in some form, and salicylic acid or a combination of these two.

There are other remedies which are useful when indicated, but judicious use of the following prescriptions will enable you to treat the average case.

The chosen application is best used at night in the following manner:

The patient should first wash the face with castile soap and

luke warm water, and gradually increase the heat of the water until it is as hot as it can be borne.

It should then suddenly be changed to cold and dashed over the face a few times afterwards applying the following lotion, allowing it to remain over night:

Zinc sulphate
Potassi sulphuret aa gr. xv-xxx
Aqua dist. f $\overline{3}$ iv

It is always well to begin with a mild strength, and if the skin tolerates the remedy the strength can be gradually increased.

If at any time there is a pronounced reaction, and signs of a developing dermatitis appear the application should at once be discontinued, and a soothing lotion applied.

For this purpose the following prescription is admirable:

Calamine $\overline{3}$ ii
Zinc oxid $\overline{3}$ iii
Glycerine $\overline{3}$ ii
Aqua calcis f $\overline{3}$ vi

In the pustula type of acne, especially where there is an associated oily seborrhoea I find that the following gives excellent results:

Ac. salicyl. gr. v-x
Sulph. $\overline{3}$ ss- $\overline{3}$ i
Vas Flava. $\overline{3}$ i

This is to be carefully rubbed in at night, and washed off in the morning with soap and luke warm water, followed by a dash of cold.

If the above directions are carefully followed out it will enable one to treat the average case of acne with a fair degree of success, but there are certain stubborn cases which will need other than the foregoing treatment.

I have used the Bier hyperemic method with a marked degree of success in cases where the predominating lesions were of the multilocular abscess type.

For this purpose a special apparatus will be necessary, for the cups will have to be made to order, as those on the market are too large.

The abscess should be carefully incised but instead of using the comedo expressor a Bier cup with a diameter of half an inch is applied.

This is placed over the papule with a moderate amount of suction and left on about half a minute.

This method of treatment has given me excellent results when used about twice a week; the after treatment being the same as already described.

The treatment of acne rosacæ is more difficult owing to the graver pathological changes which occur.

The applications already given are also useful in this condition, but other measures will probably have to be resorted to before a cure can be effected, especially when there is marked dilation of the superficial blood vessels.

In most cases these will have to be destroyed before good results will be obtained.

Multiple scarification and multiple puncture by electrolysis are useful but the electric needle, when properly used, is the best.

The needle attached to the negative pole is passed a short way along the lumen of the dilated blood vessel and a mild current of electricity is allowed to work, until distinct bubbling is observed beside the needle.

It should then be withdrawn and hot antiseptic compresses applied, followed by cold.

One should not attempt to destroy too many vessels at one sitting, or if they are too close together, as pronounced scarring may follow.

A remedy for that particular case must be selected and applied according to our homœopathic law before we can hope for a cure.

In conclusion, let me repeat that acne is not the innocent disease, as generally supposed, and that the best results are obtained by early and scientific treatment.

CONCERNING THE PREVALENT IRRATIONAL USE OF CIRCULATORY REMEDIES.

BY

CLARENCE BARTLETT, M. D., PHILADELPHIA.

(Read before the Homœopathic Medical Society of Germantown, October 19, 1908.)

ANY extended clinical experience cannot fail to teach one that the practice of prescribing remedies with the idea of stimulating the circulation is increasing, and is being carried on without rhyme or reason. Cardiac tonics are administered when not needed; stimulants are given when the heart's action is not weak; vaso-dilators are prescribed under the belief that they tone up the heart; and remedies are mixed together in the same pill without any consideration whatsoever of their physiological action and a proper idea of whether the constituents of the prescription reinforce or antagonize each other. It may be soothing to the family of the deceased that everything from digitalis to nitroglycerin has been prescribed. To the physician of scientific bent, the practice is mortifying.

Given a case of circulatory failure, the first thing is to determine the cause. I can illustrate this proposition by reference to a case of what turned out at the autopsy to be one of gangrene of the bowels with obstruction. I saw him a few hours before death. He had been well plied with strychnia and oxygen. The case was not one needing circulatory stimulation at all. Early in its history, an operation was indicated. Again in typhoid fever, the cause of the rapid weak pulse must always be determined before directing treatment against the same. It may be due to toxæmia, hæmorrhage, perforation or myocardial weakness. One should determine which before prescribing stimulation. I might even refer in this connection to the infrequency with which cardiac stimulation is needed in typhoid fever. It is very seldom indeed that I have been obliged to have recourse to alcohol, strychnia or caffeine. Too frequently indeed the cardiac weakness of typhoid fever is the product of the physician's fears and not of his deliberate and best judgment.

The commonest error in the prescription of circulatory remedies relates to the vaso-dilators, namely, glonoin, amyl nitrite,

erythol tetranitrate, etc. These drugs are not cardiac stimulants in any sense of the term. By reason of their influence over the vaso-motor nervous system, they dilate the blood vessels, and reduce blood pressure. They are indicated, therefore, in cases in which blood pressure is high, and when the heart is laboring under the increased effort placed upon it by the arterio-capillary resistance. It is worse than folly to prescribe them in such diseases as pneumonic and typhoid fevers, because in these affections the blood pressure is low. Even in cases of illness attended by high blood pressure, they must be administered with proper judgment and careful observation as to their effects. It is a very important axiom that the presence of low blood pressure in diseases in which high pressure is a symptom makes the prognosis grave. It is very easy to overdo vaso-dilation. Each case must be considered on its merits, and the changes in blood pressure noted by the sphygmomanometer and the general condition of the patient carefully observed.

When prescribing drugs for the reduction of blood pressure, one should discriminate carefully. It is true that all of them relieve; but amyl nitrite acts quickly and maintains its action for a short period. At the other extreme we have sodium nitrite which is slow in action, but maintains that action over an extended period. Hence it is that the latter drug is far better than any of the others when a long-continued reduction is desired, or the high blood pressure is persistent.

The physician must also bear in mind that tolerance to glonoin is readily established, so that a dose which is capable of producing disagreeable symptoms at first, later becomes absolutely useless.

There are cases in which cardiac failure is due solely to lowering of the blood pressure. Under such circumstances, if we are to prescribe a physiological remedy, we should advise one having a vaso-constrictor action. In this class of drugs, suprarenal substance and adrenalin unquestionably are the most powerful. The assertion that these act only when administered hypodermically, I do not believe, as I have seen excellent results from the former in several cases. Adrenalin is preferable for hypodermic administration.

There has lately grown up a practice of administering adrenalin or suprarenal substance for the relief of internal bleedings. The idea advanced is that the constriction of the arteries

lessens the size of the opening by which the blood escapes. Were this the only action of these drugs to be considered, their administration would be good practice; but they also increase intravascular pressure, and by this particular action, they should increase hæmorrhage. Especially is their use absurd in hæmoptysis, for they exert no vaso-constrictor action whatever on the pulmonary vessels. A much better remedy is amyl nitrite which by dilating the arteries of the systemic circulation practically bleeds the patient into his own vessels and lessens the pressure in the pulmonic circulation.

There are a number of cardiac stimulants whose action is attended by vaso-constriction, namely, atropia, strychnia, digitalis, caffeine and convallaria.

In accordance with a piece of sarcastic criticism of a certain celebrated hospital, that therapeutics consists of good nursing and nux vomica, there has been growing up for several years past the practice of giving strychnia indiscriminately. Were the practice harmless, I would not speak against it. A patient is in a state of shock, strychnia is administered; if simple syncope, again it is strychnia. It seems to have been forgotten entirely that we have a simple and quickly acting stimulant for the latter class of cases in the aromatic spirits of ammonia. Strychnia has its place, and is invaluable; the dose also must be regulated by the character of the case. But it must not be regarded as a universal panacea.

A drug which has been greatly neglected in cases in which quick action is desired is camphor. This is one of the best "pick-me-ups" for cardiac stimulation in acute disease. It should be given hypodermically in the shape of camphorated oil. The main objections to its use are the frequency of administration and abscess formation. It has the advantage of being non-poisonous in reasonable doses.

Cardiac tonics and stimulants are frequently prescribed in functional diseases of the heart. With very few exceptions this is a decided transgression of therapeutic principles. In practically all cases of this class of diseases the underlying constitutional condition is a neurotic habit, and it is to this that treatment must be directed if a cure is to be expected.

In organic heart affections, digitalis and its congeners are to be prescribed only when compensation is broken. Even then they must be prescribed with strict attention to existing conditions. In very many instances, cases will do well on ordinary

remedies with strict attention to hygienic details. It is always a mistake to prescribe one of these remedies to keep a heart active while the patient is violating every principle of rest. The practice I am condemning is very suggestive of attaching a tired horse to a loaded wagon, and whipping the animal to force him to his task.

We read in *materia medicas* that adonis, strophanthus, caffeine, and other remedies sometimes succeed when digitalis fails. Physicians have been too prone to assume that because these drugs succeed when digitalis fails, they must be better medicines than that old and tried remedy. In truth, the *materia medicas* mean just what they say, "succeed, when digitalis fails." *These drugs should not be given until digitalis has failed.*

A very bad but common practice is the mixing of heart stimulants. A favorite prescription is one of glonoin, digitalis and strophanthus. Think of the incompatibility of this prescription. Digitalis is a stimulant and vaso-constrictor; glonoin is a vaso-dilator. Strophanthus exerts practically no influence over blood pressure other than that arising from increasing the force of the heart. The glonoin is given to counteract the effect of digitalis on blood pressure, but its vaso-dilator action is not maintained for more than a few hours, and is lost entirely by continued administration unless the dose is increased. The desired effect is apt to be lost because the vaso-constrictor action of digitalis is well maintained. It seems to me that the effect of this favorite prescription can be secured by the use of strophanthus alone.

Worse mixtures than this can be culled from the catalogue of many manufacturing pharmacists. Here for example is a gem: Strychnia, gr. 1-15; glonoin, 1-100; atropia, gr. 1-200. And to think it has the endorsement of one of New York's great clinicians. If one will but study the action of the several cardiac stimulants, he will be able to differentiate their actions and adapt them to individual cases without indiscriminate and unintelligible mixing. These combinations are very suggestive of a cure for rheumatism advised by a Delaware farmer. It was ground glass, gum arabic and alum. The ground glass cut the pain, the alum drew the parts together and the gum arabic soldered them.

DON'TS IN ANAESTHESIA.

BY

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(Read before the Homœopathic Medical Society of the State of Pennsylvania).

1. Don't give solid food for six hours before giving ether or chloroform.
2. Don't give solid food for two hours before giving nitrous oxide or ethel chloride.
3. Don't give liquid food for three hours before giving ether or chloroform.
4. Don't give water for an hour before giving an anaesthesia.
5. Don't overlook the emptying of the bowels before giving an anaesthesia.
6. Don't forget to have the bladder empty.
7. Don't allow the patient to be out of bed for at least twelve hours before giving the anaesthesia, whenever practical.
8. Don't overlook foreign bodies in the mouth.
9. Don't fail to examine the chest for heart and lung diseases; do it before the patient is to be anaesthetized if possible.
10. Don't frighten the patient while the examination is being made.
11. Don't overestimate the gravity of heart lesions discovered when patient is about to take anaesthetic.
12. Don't fail to ask the patient:—If he is short of breath while using active exercise, such as running, walking up inclines, etc. (Heart.)
If the feet and legs swell. (Heart and kidney.)
If he has a winter cough. (Lungs.)
This will lead to a fairly good idea of the grave lesions of either heart, kidney or lungs.
13. Don't allow constricting band about the patient's neck, or chest, or waist.
14. Don't overlook nasal, pharyngeal or buccal obstructions to respiration.
15. Don't use a general anaesthesia when a local anaesthesia is practical.

16. Don't use a local anaesthesia in grave or nervous cases.
17. Don't use chloroform when it is possible to use ether.
18. Don't use ether in *grave* lung lesions.
19. Don't use chloroform in grave heart lesions.
20. Don't be afraid to use ether if the quality of the heart's sound is good.
21. Don't fear to give ether to patients of all ages. In the young and aged give a greater percentage of air.
22. Don't condemn anaesthetics with which you have had little or no experience.
23. Don't forget that nitrous oxide or ethel chloride, or its combinations, given before ether, overcomes its unpleasant effects and prevents after vomiting and distress.
24. Don't forget the mortality of nitrous oxide per se is practically "nil."
25. Don't give ether or gas to patients with marked arterio sclerosis.
26. Don't forget chloroform may be given in cases with a heart lesion (Patton) if great care is exercised.
27. Don't overlook the fact that the anaesthetist assumes as grave a responsibility as the operator in major cases and his responsibility is greater in minor cases than that of the operator.
28. Don't forget that your first consideration is your patient.
29. Don't talk to those around you.
30. Don't fail to reassure the patient.
31. Don't fail to gain the confidence of the patient before applying the inhaler.
32. Don't use the closed inhaler.
33. Don't place the inhaler tightly on the face at the beginning of the administration.
34. Don't give large quantities of the anaesthetic in the beginning. Use the drop method, giving from fifteen to sixty drops the first minute and gradually increasing to a rapid or continuous drop.
35. Don't exclude the air to any great extent nor give large quantities of ether until the superior and recurrent laryngeal nerves have lost their irritability.
36. Don't give large quantities of ether (meaning crowd it) when the patient coughs or holds his breath. Raise the cone one-half inch from the face at either end, continuing to give the

ether without intermission until natural breathing is resumed, then gradually lower the cone to the face and continue.

37. Don't hold the jaw up when starting to give ether or chloroform. Wait until sensation is dulled and consciousness lost.

38. Don't allow talking or noise in the room when a patient is being anaesthetised. The anaesthetist may talk to his patient.

39. Don't expose the patient to cold while giving the anaesthesia, must be well wrapt.

40. Don't *hold the patient down* when he moves. Restraint is necessary only when there is violent struggling and there is danger of the patient doing harm to himself or those around.

41. Don't forget that a patient is easily controlled by suggestion and will not move about if told to lie still and put his hands and feet down.

42. Don't allow the patient's hands to interfere with the inhalation. An assistant can prevent this by putting his arms across the patient's chest without touching it, thus forming a barrier between the hands and the inhaler.

43. Don't mistake the stage of quiescence which occurs between the first and second stage for surgical anaesthesia, be guided by the anaesthetic reflexes.

44. Don't allow the jaw to drop down when consciousness is lost, hold it up during the second or stage of excitement. Don't fail to hold the jaw up and forward when relaxation has occurred. This insures a free air passage.

45. Don't allow the adjustment of blankets or active preparation of the patient until unconsciousness and relaxation have occurred.

46. Don't use artificial respiration when the patient ceases breathing in the second stage. This may be the only manifestation of muscular excitement and may last a full minute, but the anaesthetic reflexes will all be present.

47. Don't *exclude* the air when the patient has a spasm of the glottis, rub the lips vigorously and dilate the sphinctre and use rhythmical contraction of the lower jaw, holding it up firmly the while.

48. Don't exclude the air in blond patients. They become more readily cyanotic than others.

49. Don't allow too much air, vomiting will occur.

50. Don't mistake the dilated pupil of cyanosis for the dilated pupil of overdose.

51. Don't forget that quiet shallow breathing may mean the patient is getting too little of the anaesthetic and is coming out and about to vomit, give small quantities.

52. Don't overlook the fact that shallow *sighing* respiration with absent reflexes is due to too much of the anaesthetic. Central failure of respiration.

53. Don't expect to find the patient shocked from the anaesthetic when the reflexes are present.

54. Don't forget that the first stage of anaesthesia ends with the loss of memory (unconsciousness), and the second stage begins with muscular excitation, slight or violent, and ends with muscular relaxation, that the third stage or surgical anaesthesia begins with relaxation and ends with the loss of the reflexes, save the pupillary and corneal; that the fourth stage, that of stage of overdose (or Bulbar paralysis) begins with loss of all save the pupillary and corneal reflex and ends with death.

55. Don't forget that anaesthesia is physiological to the end of the third stage and pathological or toxic in the fourth.

56. Don't forget that in the signs of the first stage of anaesthesia the reflexes are all present and the patient is conscious.

Second or exciting stage (ranging from contraction of the chest muscles momentary with holding the breath to violent muscular movement.)

The heart's action is accelerated—breathing altered, shallow or jerky.

Reflexes all active.

Pupils dilated when the lids are raised, contracting upon exposure to light, remaining contracted sometimes redilating slightly.

Third stage (Relaxation).

Heart's action accelerated but full and regular.

Respiration regular, free and more rapid than normal.

Reflexes absent save conical which is active.

Pupils contracted, remaining contracted.

Fourth stage (Toxic or Overdose).

Ranges from mild to grave.

Mild—Heart's action little altered from third stage.

Respiration little altered from third stage.

Reflexes absent save the conical.

Pupils dilated, contracted, redilated to original dilatation.

Grave—Heart action labored and weak.

Respiration shallow and sighing.

Reflexes abolished.

Pupils dilated and fixed.

Surface cold and clammy.

Eyelids apart.

Cornea dry and glazed, and if continued death.

57. Don't forget that a patient may pass quickly from the second to the early fourth stage when ether is added continuously and that when no ether is added may pass quickly from the early fourth to the second stage.

58. Don't forget that it requires from thirty to sixty seconds after giving ether before its effect is noted.

59. Don't forget that chloroform is seven times more powerful than ether as an anaesthetic or toxic agent.

60. Don't keep the cone over the face when the pupils become dilated and fixed. Dilated and fixed pupils occur with—

1. Overdose.

2. Carbon dioxyde poisoning.

3. Some time with threatened vomiting, or

4. Shock.

61. Don't abolish the cornea reflex. It is lost in overdose, shock and carbon dioxyde poisoning.

62. Don't allow the accumulation of mucus.

63. Don't hold the jaw up and forward in patients who have no teeth. It will cut off the air space.

64. Don't allow the pupils to remain at a point where they contract vigorously and remain contracted. Give more of the anaesthetic.

65. Don't give more of the anaesthetic when the pupils contract and *redilate widely*.

66. Don't *stop* giving the anaesthetic:

1. When the patient is swallowing.

2. When the eyeballs roll from side to side synerously.

3. When there is an infrequent prolonged inspiration or sigh.

4. When the respirations are quiet.

5. When the patient moves his eyebrows or fingers, or when the patient begins to vomit.

67. Don't give the anaesthesia if the patient has—
 1. Spasm of the glottis.
 2. Jactitations. (This is muscular contraction of the shoulders.)
 3. Cyanosis.
 4. Shallow, irregular sighing breathing.
 5. Weak threaty pulse.
 6. Cold, clammy surface with lids apart.
 7. Insensitive cornea.
 8. Dilated pupils, and fixed pupils.
68. Don't forget the patient eliminates the anaesthetic through the lungs, kidneys, gastric mucosa and skin.
69. *Don't forget by the drop method the patient eliminates the anaesthetic almost as rapidly as it is absorbed, when the reflexes are not abolished.*
70. Don't overlook surgical anaesthesia when using nitrous oxide, ethel chloride or its combinations.
71. Don't forget cyanosis is lacking in surgical anaesthesia of ethel chloride.
72. Don't forget that stertor and jactitations are indications for the admission of air.
73. Don't forget that anaesthesia deepens with the admission of air after surgical anaesthesia from nitrous oxide and ethel chloride.
74. Don't forget that a readministration of nitrous oxide and ethel chloride frequently causes after-sickness.
75. Don't forget that in giving nitrous oxide to give air after fifteen continuous respirations and allow one respiration of air after each succeeding five respirations from nitrous oxide.
76. Don't give chloroform in the sitting or semi-recumbent position.
77. Don't hold the chloroform inhaler closer than one and a half inches from the face.
78. Don't give chloroform except by the slow drop method.
79. Don't forget that a patient is in a state of surgical anaesthesia when there is—
 1. An absence of swallowing.
 2. Absence of sighing respiration.
 3. Absence of lid reflex.
 4. Absence of rolling eyeballs and the pupils are contracted and do not react to light.
 5. Do not touch the cornea.

80. Don't continue the anaesthetic when the patient ceases to breathe, give air and if the reflexes are present wait for the first return of normal breathing.

81. Don't forget that cessation of breathing may be due to muscular contraction of the chest muscles in the second stage,

Spasm of the glottis, or from a central paralysis or local obstruction.

82. Don't forget that bronchitis after anaesthesia may be due to an excess of mucus and a stationary position of the patient after operation.

83. Don't forget that pneumonia occurs from inspired infective material or exposure to cold.

84. Don't forget that all the blood of the body may accumulate in the vessels of the abdomen from vaso-motor paresis.

85. Don't forget the anæmia of the brain from the anaesthetic may cause cardiac or respiratory failure.

86. Don't forget that cardiac and respiratory failure may occur simultaneously or separately.

87. Don't forget cardiac or respiratory failure may be central or peripheral.

88. Don't forget that an acute dilatation of the stomach after operation simulates shock.

89. Don't add carbon dioxide poisoning to chloroform anaesthesia.

90. Don't give anaesthesia with the first inspiration after prolonged holding of the breath. Chloroform may cause an acute dilatation of the heart.

91. Don't forget that a patient may stop breathing when a clamp is applied to a hemorrhoid.

92. Don't forget the patient may stop breathing with the first incision.

93. Don't forget that manipulation of the great vessels and nerves of the neck may cause shock.

94. Don't forget that cardiac failure, if central, is slow in onset. If peripheral is sudden and usually fatal from acute dilatation.

95. Don't forget that in the short term anaesthesia death occurs from asphyxia.

96. Don't forget the patient should be deeply under the influence of chloroform in operations for eclampsia.

97. Don't forget the patient may die days after the administration of chloroform from atrophy of the vital organs.

98. Don't forget a patient may die if left unattended before muscular control is regained.

99. Don't forget that apoplexy may occur during or after an operation under a general anaesthesia.

100. Don't allow draining of fluids until the pulse warrants it.

101. Don't give ether on an unprotected cone near a naked flame; or when the actual cautery is being used about the face or chest.

102. Don't stimulate a patient until the inhaler has been removed and fresh air or oxygen has been inhaled.

103. Don't forget that rubbing the lips with a rough towel stimulates respiration.

104. Don't forget that what stimulates respiration stimulates circulation.

105. Don't forget that adrenalin and ergot should be used as stimulants in shock.

106. Don't forget atropin and strychnine in respiratory embarrassment.

107. Don't forget spraying adrenalin upon mucus membranes is readily absorbed.

108. Don't forget that adrenalin stimulation is of short duration and should be frequently repeated.

109. Don't use artificial respiration without first emptying the chest.

110. Don't forget massage of the pneumogastric nerve stimulates respiration.

111. Don't forget in cardiac-syncope (an acute dilatation of the heart) to stand the patient on his feet if lowering the head gives no result.

112. Don't forget in shock from loss of blood to use saline solutions, hypodermically or intra-venously.

113. Don't forget that excess of saline solution in the body may cause oedema of the lungs.

114. Don't forget that spasm of the glottis may be overcome by—

1. Rubbing the lips.
2. Compression of the chest.
3. Massage of the larynx.
4. Massage of the pneumogastric nerve.
5. Last and of greatest importance is the dilatation of the sphincter ani muscle.

115. Don't forget in an excess of mucus in the chest to have patient turned on the side when returned to bed.

116. Don't forget in respiratory failure:

1. Air.
2. Oxygen.
3. Lowering the head.
4. Rhythmical compression of the chest.
5. Massage the pneumogastric nerve.
6. Dilatation of the sphincter ani muscle.
7. Rhythmical traction of the tongue.
8. Artificial respiration.

117. Don't forget to wash out the stomach before and after operations for bowel obstruction and in peritonitis.

118. Don't forget that threatened vomiting may be overcome by rhythmical traction of the lower jaw.

119. Don't perform artificial respiration when the patient holds his breath in the second stage. It is due to a spasm of the glottis or of the chest muscles.

120. Don't forget vinegar or acetic acid as an antidote to after-vomiting.

Hot water.

Nux vomica in hot water.

Bicarbonate of soda in water.

HOMŒOPATHIC TREATMENT OF HEART CASES.

BY

WALLACE MCGEORGE, M. D., CAMDEN, N. J.

(Read before the West Jersey Homœopathic Medical Society, Nov. 18, 1908).

HAVING read a paper on this subject several years ago before the State Society, and one on heart remedies before this Society two or three years back, it will hardly be proper to write as fully on this subject at this time. For this reason several remedies I mentioned then will not be presented to you now.

As some of our members put pathology before materia medica, and after devoting much time in making their diagnosis, spend very little time in hunting out the symptoms for the remedy in the given case, often prescribing for the disease and not for the individual case before them, I have thought proper to meet them on that plane, and to mention a

few remedies that are recommended for certain heart lesions, before proceeding to give some indications for the use of the medicines according to the homœopathic law. But, although I have named some remedies in certain lesions, I do not recommend my hearers to follow this procedure, but I do urge them to follow Hahnemann's teaching that "the totality of the symptoms is the sole indication in the choice of the remedy."

For *acute inflammation*, aconite, bryonia and veratrum viride occupy front rank; arnica, digitalis and spigelia come next.

For *pericarditis*, aconite, bryonia, veratrum viride, spigelia, arsenicum, digitalis, cactus, kali carb., belladonna, colchicum, valerian and squills.

For *endocarditis*, in addition to the above remedies, aurum, iodine, naja, sulphur.

For *myocarditis*, arnica, rhus tox, aconite, bryonia.

For *hypertrophy* and *dilatation*, arnica, kalmia, plumbum, spigelia, digitalis, arsenicum, lycopus, naja, lachesis.

For *atrophy*, arnica, kali carb., china, arsenicum, phosphorus ferrum, nux.

For *fatty heart*, phosphorus, kali carb., nux, china, hydrastis, arsen. alb., crataegus, belladonna, spigelia, cuprum, aurum.

For *weak heart*, the chief remedies are arnica, ignatia, digitalis, nux, arsenicum.

For *goitre heart*, arsen., spigelia, iodine, bromine, bell., lachesis, lycopus, cimicifuga.

For *angina pectoris*, magnes. phos., cactus, spigelia, gelsem., lycopo., arsen., verat. alb., bell., spongia, glonoine, aurum, lycopus.

For *hydropericardium*, apis, apocynum, arsen., hellebore, mercurius, lycop., sparteine, sulph. and canth.

For those who divide the painful remedies into classes, we quote Duncan's list, as follows: *Sharp pain*, bryonia, spigelia, kali carb., cactus, kalmia, spongia, arnica, apis, cimicifuga, bromine, colchicum, graphites, dioscorea, phytolacca, zincum.

Dull pain, veratrum, viride, aconite, colchicum, cimicifuga, gelsem., lilium, veratrum alb., glonoine, eupat., bell., cuprum.

Stitches of pain, spigelia, kali carb., lycopus, causticum, graphites, carbolic acid, anacardium, lachnanthes.

Palpitation will lead us to think of aconite, arsen., bell., coffee, lachesis, ignatia, phosphorus and labacum.

In essential paroxysmal tachycardia, aconite, lachesis, nux.

In cardiac asthma, sumbul, arsen., bryonia, ignatia.

In exophthalmic goitre, aconite, bell., glonoine, lycopus, ignatia, kreosote, pilocarpus, lachesis, spongia, medorrhinum. Babcock classes this condition as a disorder of the nervous system, but as in every case I have seen the heart symptoms were the most distressing, I have placed it among the heart lesions.

And now for some hints in the selection of the remedy to palliate or cure our patients.

If I should be limited to the use of one remedy in treating heart diseases, from my experience in this hospital and dispensary for fifteen years, I should select aconite. In many of the new cases so fearful are the patients that they will die soon, and that there is no hope of recovery, that I prescribe aconite, 30, a dose every hour until better, tell them they soon will be better and look for improvement on the next visit. In no single case where this nervousness with fear of approaching death was present, did aconite fail me, and in many cases aconite entirely cured the entire trouble.

Dr. Chas. Phillips, in his *Materia Medica*, when writing of aconite says: "It is rare indeed to meet with permanent organic disease as a result of rheumatic fever when the disorder is treated with aconite from the commencement. * * * * If aconite be used from the commencement, the heart is, in my experience, seldom affected, and the patient suffers much less from pain and swelling in the joints, while the duration of the fever is considerably lessened." "Aconite is also of great use in those cases of palpitation of the heart which depend upon simple hypertrophy of the left ventricle. On the other hand, in hypertrophy of the left side of the heart with diseased valves, admitting of regurgitation, aconite is dangerous."

In all heart troubles when the patient complains of an aching all over the body, or has chilly creeps followed by hot flashes, when the chill runs up from the feet to the heart, with a nervous indefinable fear of some approaching evil, or when the patient feels he is going to die within a few hours, aconite is the best remedy in the *materia medica*.

In essential paroxysmal tachycardia a single dose of aconite promptly brings relief, the patient brightens up and forgets his trouble in a little while. While patients afflicted with this complaint sometimes recover from the attack without any medicine, the relief is so prompt after aconite has been administered, that it is expedient to give it unless some other remedy is more clearly indicated.

Aconitum Ferox, the most poisonous species known is more indicated in hydropericardium, when the patient is compelled to sit up leaning forward, with the head resting on his hands; dyspnea is greater with this variety than with *aconitum napellus*. The pulse is small and weak and slowed down several beats in a few minutes.

A characteristic symptom of aconite in heart troubles is a numbness and tingling in the body; if this numbness or tingling is worse in the left arm and hand, aconite certainly will help the case. Other remedies have the numbness, but no other remedy has the tingling in so marked a degree as *aconitum napellus*.

I generally use this remedy in the 30th potency, but when it is the remedy you can get good results from the third potency. In veterinary practice thirty years ago, I occasionally used the tincture, but in a year or two I found that I got quicker and more lasting results from the 200th potency, and I have never used aconite in the tincture since. In my experience improvement follows in from one to five minutes when the nervous symptoms are the most pronounced; in fevers in from half an hour to two hours, and if the patient is in bed, and covered up, a profuse sweat can be induced in one hour's time if the dose is repeated every fifteen minutes, and the remedy given in the higher potencies.

Veratrum viride.—It is a great jump from aconite to *veratrum viride* in the materia medica, but the distance is not so great in their range of action in heart troubles. There is more congestion with *veratrum viride* than with aconite. Congestion of head, lungs, heart, kidneys, in fact of all the internal organs. There is intense heat of the body with an alarming rise of temperature.

Dewey says it has a condition of intense arterial excitement. Nash says that those organs under the control of the pneumogastric nerve, viz., pharynx, œsophagus, stomach and heart are more quickly affected by this drug.

Veratrum viride is recommended for continuous use in hypertrophy with dilatation. Aconite in simple hypertrophy when there is no dilatation. In my experience *veratrum viride* is not a safe remedy to give continuously in the tincture or low potencies on account of its depressing action. We should remember that *veratrum viride* has two actions on the heart: *First*, exciting its action and increasing the frequency and volume of

the heart beats; *second*, depressing its work and lowering the pulse. Nearly all the powers report this condition, whether the proving was made with the tincture or the 200th potency. Dr. B. Woodward, who made his proving in 1860, took 8 drops of Norwood's tincture at 8 P. M., 4 drops at 10 P. M., and 3 drops at 12 M., recorded his symptoms as follows: Natural pulse 90, before the experiment 94, in one hour 87, in two hours 80, in three hours 75, in four hours 65, in four hours and ten minutes (ten minutes after he took the third dose) it was 50, in five minutes more it was down to 42.

Veratrum viride has constant, dull, burning pain in region of heart, and is recommended in idiopathic and rheumatic pericarditis and endocarditis, when the heart's action is violent and tremulous, but I have had no experience with it in these troubles.

About thirty years ago there was a dangerous and fatal epidemic of scarlet fever in this section of the United States. I lost more cases in one month then, than in the entire forty years of my practice before and since. The fever was high, the patients became delirious, and sometimes the disease had run its course, and the child was dead before your second visit. To control the very rapid pulse and lessen the temperature many physicians dropped their belladonna and gave one and two drop doses of Norwood's tincture, every hour until the pulse was under one hundred. But there were two difficulties to contend with—if you continued it too long the pulse got so low there was danger of collapse; if you stopped it entirely in a few hours the pulse and temperature both leaped upward. Candidly speaking, *veratrum viride* did not fill the bill.

Yet in one case of post-scarletinal dropsy when the urine was suppressed, the fever rose rapidly, the child became delirious, and convulsions of uraemic nature set in, *veratrum viride* in the first potency cured the case entirely. Called about 9 P. M., I found the child unconscious, and going from one convulsion into another. Two other physicians were soon on hand, but the prognosis was bad, very bad; they gave up all hope and I felt very blue, but did not stop thinking. The burning heat of the head and body, the rapid pulse, over 160, the labored but not stertorous breathing, the entire suppression of urine, the failure of belladonna and opium to control the convulsions or lessen the fever, after a few minutes' searching work, led me to *veratrum viride*. Placing three drops of the first potency in

half a glass of water I forced a few drops between her lips every fifteen minutes for one hour and watched anxiously for a change for the better. In one hour and a half the convulsions were a little farther apart, and soon they lasted a shorter period. In two hours the convulsions ceased, the pulse became much lower, the temperature was lessened; in three hours some urine, loaded with urea, was passed; in four hours the child was sleeping quietly, while her body was bathed in a gentle sweat, and in five hours I went home and to bed, thankful that God had answered the mother's prayers for the recovery of her child, and that I had been directed to give *veratrum viride* as the means under God's blessing for the raising of the child from her alarming illness.

But *veratrum viride* will work just as surely in the high potency as in the low, as the following observation will show: In February, 1897, when the writer was laid up with a terrible congestive headache with congestion of the lungs and impending pneumonia, Dr. Ironside gave him *veratrum viride* 200. This relieved the headache in a few hours, scattered the congestion in the lungs, and only a catarrhal trouble remained.

Bryonia is the best remedy in all cases when the patient is worse from motion, better from rest. It makes no difference what the lesion is, or what the abnormal conditions are, whenever the patient is relieved at once by sitting down or resting, *bryonia* will serve you well. Particularly good is it in those cases of arterio-sclerosis, when the circulation of blood through the calcareous degenerated arteries is so limited that the patient gives out from getting up and moving about, when they cannot walk a square without giving out. You find these people sitting up, cheerful, glad to see you, but unable to move around because they cannot get their wind, as they express it. In pericarditis, and in all painful affections of the heart, with stitches in the region of the heart, when the patient must keep still, *bryonia* will instantly impress itself upon you. If I wrote a dozen pages about this remedy I could not make this point stronger.

Arnica is a great favorite with me in those cases of hypertrophy superinduced by violent exercise, such as foot racing or century runs, which used to be a fad with cyclers. In young men or women who have been lifting beyond their strength, or have strained their hearts by overwork, whose chief complaint is *soreness*, *arnica* will be the remedy par excellence. This is a remedy which will bear repeating, and I have given it

successfully for weeks. Just as surely as arnica will reduce an external swelling caused by a bruise or blow, just so surely will it reduce the hypertrophied heart when it is the result of overwork or too violent exercise. The keynote is *soreness*. Sore as if beaten or bruised; they cannot lie down comfortably because the bed feels so hard, and, like bryonia, they are relieved by rest. Johnson says arnica has lancinating pain in region of heart, causing faintness, but I have had no clinical experience with it in this condition. For lancinating pain I chiefly rely on staphisagria.

Cactus grandiflorus is often used for its physiological effects, some specialists giving it in two to five drop doses every hour or two continuously, even a teaspoonful of the tincture has been given daily in certain organic heart troubles week in and week out. But this is physiological and not homœopathic treatment.

Cactus is a true nerve remedy, and when the cardiac trouble is of nervous origin, when the pain starts at the spine and follows the course of the nerve to the sternum, or when there is a crushing sensation, or a constrictive feeling as of a cord tied around the body or a grasping sensation as if an iron band grasped the heart or as if an iron band interfered with the expansion of the lungs or heart, cactus will surely help and help quickly. In old people who can scarcely lie down for the pain around the heart with difficult respiration, cactus will relieve in a few hours, and the patient will lie down and sleep quietly. When the heart trouble is complicated with dysuria or hematuria, cactus will frequently cure heart and bladder trouble too. I have used cactus in the tincture on Dr. Snader's indications, but the best results from this medicine have been obtained from the 30th, 200th and 74,000th potencies.

Crataegus is a much lauded remedy, but has failed me so many times when I needed help that I do not think much of it. It is recommended in a chronic heart disease with extreme weakness; in dilated heart when the first sound is weak, and in mitral regurgitant murmur. Some of our staff in this hospital think very well of it, and I should be glad to know in what class of cases it does the most good.

Spigelia is a capital remedy in valvular troubles, in neuralgia of the heart muscle or of the intercostal muscles; in mitral regurgitation; in rheumatic carditis; in pericarditis with sticking pains, palpitation and dyspnoea. When you feel the burning

sensation on palpation, or when you hear this sound, do not forget to study up *spigelia*. In those cases where the patient can only get her breath while lying on the right side with two or three pillows under the head, *spigelia* will be the *simillimum* for this condition. In neuralgia extending to the left arm and in angina pectoris, it will do good service.

Magnesia phos., one of the Schussler remedies, is of great use in true angina pectoris. In one case when the post-mortem revealed calcified coronary arteries and a calcareous deposit in the aorta, *magn. phos.* 6x in hot water relieved the paroxysms, and lessened their duration so much that she always begged for "some of those powders." It made her more comfortable and she lived one year longer than my prognosis called for. It was only in the last week of her life that this medicine failed to relieve her. It is an excellent remedy in intercostal neuralgia, and, like *cactus*, it has the constricting sensation around the chest, but in a lesser degree than *cactus*. When pains radiate from the heart in all directions, *magn. phos.* will quickly relieve. In my experience this medicine always works better and quicker when given in hot water. When you have a patient with a constant harassing cough relieved by drinking hot water, *magn. phos.* will cure.

Sulphur.—For absorption of fluid in the pleural sac or in the pericardium, sulphur may go up head. *Secale* is useful in those cases when the patient throws off the clothing, he cannot bear the least heat. *Secale* is particularly good in cases of organic heart trouble aggravated from the effects of a debauch when there is persistent vomiting and on account of the burning in the stomach, the patient throws off the bed clothing, even in a cool room. Sulphur is a capital remedy in pericarditis with effusion, with stitches in the heart. In this respect sulphur resembles *kali carb.* and *bryonia*; it has stitches in cardiac region worse on taking a long breath; stitches in right side of chest and stitches in pericardial region. It is good in palpitation, and when the patient tells you the heart feels too big, sulphur may serve you and your patient a good turn in a little while.

For absorption of vegetative growths in endocarditis spongia is the most effective. I have given this remedy, week in and week out, in children affected this way, with gratifying results, the regurgitation growing less, the dyspnea fading away, and the child improving in every way. In an elderly lady who

died at 78 who had suffered since childhood with heart trouble following inflammatory rheumatism, *spongia* helped, but did not cure. While taking *spongia* she breathed easier and could move about more readily, but it did not remove the diseased condition. *Spongia* has been used in angina pectoris and in rheumatic endocarditis with blowing sound at each heart beat.

Staphisagria is good in lancinating, stabbing pains in or around the heart. But in organic heart troubles when the patient has been annoyed by unkind remarks from her family or friends, it is the best remedy in the materia medica. When people worry over unpleasant remarks, or when a woman suffering with organic trouble is compelled to punish her child, or conquer it when it is determined to have his or her own way, and a fresh attack of her heart trouble is brought on from the excitement, *staphisagria* will soon remove the dangerous symptoms and put her on her feet again. As old Dr. Nearing used to say, *Staph.* is good in bad effects from the naughtiness of others.

Lycopus is a good remedy in cardiac asthma, in cases of cardiac irritability or hypertrophy, but *sumbul* in my opinion is a better drug to rely on in cardiac asthma. It is also good in arterio-sclerosis. In both of these diseases aggravation follows active exercise, and in some cases the patient can hardly walk across the room without the breath giving out. In those cases of cardiac troubles where the kidneys are also affected, and when there is a greasy pellicle on the urine *sumbul* will relieve all the symptoms. When the patient has effusion around the heart with difficult or labored breathing, and we see this greasy pellicle floating on the urine if in addition there is a "lateritious" sediment or uric acid crystals in the urine, we would be more apt to think of *lycopodium* and *lycopodium* will remove the pellicle and red sand in from twelve to forty-eight hours.

Many other remedies should be written about, because there are very many drugs useful in heart cases that have not even been mentioned, but this paper now has taken more time to read than is usually allotted to one writer, and we must defer till another time those remedies that have been omitted in this brief summary.

THE USE OF THE OPHTHALMOSCOPE IN GENERAL PRACTICE.

BY

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WHILE not underestimating the great demands on the time of our general practitioners, and while firmly believing that they are the best allround informed men (and women) to be found any where and in any school, I still believe that in the growth of specialism and in the natural cleavage that followed, they have delegated to the specialist too exclusively the use and familiarity with certain instruments of great diagnostic value.

It is my purpose therefore to call attention briefly to one of these and point to a few reasons why a little time and practice might be spent profitably in acquiring a moderate degree of proficiency with the ophthalmoscope. It has been my observation, and I believe the observation of other oculists that the average general practitioner not only knows little of the mysteries revealed by this instrument, but in many instances, he is ignorant of the method of using it.

A very general idea seems to prevail that the ophthalmoscope is an instrument for examining alone the retina and optic nerve. Whereas in fact nearly every part of the eye and each transparent media from the cornea to the choroid may in turn be brought into view, and its use is of value, not only, in those obscure causes of failing sight due to disease, but also, in the varied range of accidents to which the eye is subjected. When also we remember that almost every pathological change occurring in the eye has a definite relation to the general health of the patient, or is the result of some traumatism, we see how important it is that the medical man should have at least a rudimentary knowledge, first of the various structures to be viewed, secondly, of the manner of viewing them, and thirdly, the ability to intelligently interpret what he sees.

When we realize that through the invention of Helmholtz we are permitted to look upon a complete vascular system, in the retinal circulation, observe the size, and distribution of arteries and veins and to see, not to feel, the patient's pulse. To look upon active nerve tissue and note within the eye all the pathological changes, that take place in the fundus and intervening media, we begin to appreciate the value of the instru-

ment, and to wonder that its use is so occasional among our rank and file.

I would not be misunderstood, as arguing that you all become ophthalmogists, because I urge familiarity with the ophthalmoscope. Acquaintance with its use is not as dangerous as the amateur refractionist, who after a short experience in some eye dispensary, essays to prescribe glasses for such as may trust him, and who as a rule is woefully lacking in the sister science of the ophthalmoscopy.

I think I state without fear of successful contradiction that it is less difficult to master the details of ophthalmoscopy than to successfully select and judiciously prescribe correcting lenses for complicated refractive and muscular anomalies.

To speak practically of some of the uses to which the general practitioner may place the ophthalmoscope permit me to enumerate a few.

You are frequently called upon to prescribe for slight abrasions of the cornea. Sometimes these are so small as to be invisible to the eye even when aided by focal illumination but the faintest displacement of the epithelial layer on the cornea becomes instantly visible as a darkened line against the red reflex of the dilated pupil.

Frequently too we are consulted for the relief of an imbedded cinder or emery or other foreign substance so small as to defy detection by the best focal illumination. However, with a strong glass in the ophthalmoscope such a speck is instantly discerned as a black object against the red background of the pupil.

Not only are abrasions and foreign bodies quickly detected but more or less faint deposits and exudates on or in the cornea are discernible.

Going deeper, we may, in serious iritis, note the turbid aqueous and pyramidal deposits on the post layer of the cornea. Penetrating wounds (if I may be permitted once again to mention my favorite theme) and foreign bodies lodged within the eye may frequently be located, and the damage they have wrought may be ascertained. And no more interesting picture can be imagined than the encysted shot, or the suspended drop of blood in the vitreous. The faintest beginning sclerosis and opacity of the lens fibers show with a dilated pupil as black spicules or fine dust like deposits against the red glare of the fundus. The various forms of cataract, nuclear, cortical and polar, are readily found and you can scarcely be mistaken as to

their character and location. Contusions of the eyeball or even a slight blow upon its surface may result in the dislocation of the crystalline lens, and while this may under some circumstances, be evident without the use of the ophthalmoscope yet by its use and with the pupil dilated we may make out the displaced edge of the lens which will appear as a dark shadow surrounded possibly by the light crescentic reflex beyond its border. Similar contusions may result in rupture of the choroid with extensive extravasations of blood in the retinal and sub-retinal tissue. These also are easily discernible and unmistakable by the aid of the ophthalmoscope.

In cases of suspected iritis the pupil may, after the instillation of a mydriatic, be observed for the purpose of determining the presence of posterior synechia, (attachment of the iris to the lens capsule) and should we find the dilation irregular and the iris bound at one or more points our diagnosis is confirmed. While if mydriasis be rapid and the pupil uniform in size it may with equal certainty reject it.

While it is true that each normal fundus differs in some particular from another so that no two are exactly alike, there yet remains a sharp line of demarcation between the normal and the abnormal. We soon learn to recognize the characteristic pinkish white appearance of the healthy optic nerve, and just as readily detect undue congestion on the one hand or unusual palor on the other.

It will not, of course, be possible to describe the appearance of the various lesions of the nerve retina and choroid. Suffice it to say that each have general characteristics that render their recognition generally possible.

The beginner will find his efforts greatly facilitated by having the pupil moderately dilated and for this purpose a drop of a four per cent. cocaine solution should be instilled 10 minutes prior to the examination.

The first thing that attracts his attention, on reflecting the light upon the cornea, while looking through the sight hole of the instrument, is that the pupil is no longer black, but gives back a brilliant red reflex, and by this red reflex, as an illuminated background we are enabled to see any abrasion, opacity or foreign body resting on the cornea. And any partial opacity of the lens or its capsule will appear as a dark object against this brilliant red by having the patient move the eye in varying directions. If

the opacity descends as the eye is directed downward it lies anterior to the rotating center of the eye, which lies not in the center of the eye as may be supposed, but in the crystalline lens itself; hence if the object move upward as the eye looks downward we may know that it rests in the posterior part of the lens or the anterior part of the vitreous.

As we approach nearer the patient the red reflex begins to show the details of the fundus, the optic nerve with its branching arteries and veins, the small nutrient arteries running over the surface of the nerve. The cuffing in the centre of the disk and occasionally the pulsating of vessels.

No more brilliant or beautiful picture can possibly be imagined than that given by the little concave mirror of the ophthalmoscope. I venture to say that were it a present-day discovery rather than an instrument fifty years old, it would be found in the armamentarium of every progressive physician. It gave the greatest impetus to the study of ophthalmology, hitherto unknown and unrecognized diseased conditions were made clear, volumes have been written on its findings and it deserves a more general use at the hands of the medical profession than it is receiving.

Familiarity with its use and increased knowledge of the appearance of the fundus would establish between the general practitioner and the specialist an intelligent understanding, enabling them to work in greater harmony, on mutual cases. It would render papers written by ophthalmologists more intelligible and interesting to the profession in general than they are at present, and it would enable the general practitioner to determine with greater scientific accuracy the needs of his clientele and redound to his credit and reputation as a better equipped diagnostician than his less enterprising brethren.

HOURLY CONTRACTION OF THE UTERUS.—In order to prevent the occurrence of this accident Sothoron advises that we: 1. Avoid meddlesome midwifery, such as early rupture of the amniotic sac before it has thoroughly performed its function, as a dilator and distender. 2. Avoid the use of ergot or other drugs of similar action until the completion of the third stage of labor. 3. Avoid interference with normal uterine contraction by the prolonged use of chloroform or ether. 4. Avoid the danger of stimulating spasmodic uterine contractions as well as danger of rupture of the cord by an attempt to deliver an adherent placenta by traction on the cord.—*Amer. Jr. Obs.* Vol. 58, 457.

EDITORIAL

IF WE RESPECTED OURSELVES MORE, WE WOULD STAND BETTER IN THE EYES OF THE LAITY.

THE growing strength of certain pseudo-scientific cults has been a matter of great mortification to the medical profession. All attempts thus far made to stem the tide have been unavailing. Legislation is being invoked, and thus far has proven unsuccessful. The only remedy for this, as all other evils, is education. Certainly we cannot hope to be successful as long as our medical journals teem with articles whose main trend is the abuse of professional knowledge. Let us take as an example the *American Medical Association's Journal* for December 12, 1908, a great part of which is taken up with a discussion of the Pharmacopœia.

The number opens with an article by Torald Sollman on "The Pharmacopœia as the Standard for Medical Prescribing." The tone of this paper is dignified throughout. While beneath we can read strong criticism of the profession, the general tendency of the paper is constructive. The author explains the value of the pharmacopœia to the profession, the disadvantages and difficulties attendant upon present methods of revision, and offers good advice looking towards improvement. When, however, he comes to speak of the National Formulary, he pays his respects to it as it existed in the past in these words: "For those who like this sort of thing, this is just the sort of thing they like." While he admits the greatly improved character of the formulary, he still finds much to criticise in it in its new form.

The second article in the series is by a professor of medicine in one of the largest medical colleges in the United States. The following quotations from it make as severe an arraignment of the regular medical profession as could be written by one of its most bitter enemies.

"It is safely within the limits of strict justice and truth to remark that legitimate pharmacy has been grossly neglected by the medical profession during the past quarter of a century."

"In general, education of the medical profession in the importance of the information to be derived from a careful study of the U. S. Pharmacopœia and the National Formulary is a leading consideration and one which should not be ignored."

"Indeed the present unenviable situation and the shortcomings of the medical world, in relation to pharmaceuticals are largely the result of the errors of the past, especially in the direction of a dominating tendency to employ proprietaries and secret nostrums."

"It may, however, be justly claimed that at present the medical profession of America is slowly and gradually recovering from the debauched condition into which it has fallen . . . and what is even more regrettable, illicit combinations between certain of its members and those manufacturing druggists who pursued dishonorable methods."

"If physicians were to inform themselves more fully on the reliable facts and data contained in these books they would appreciate their superior advantages in practical therapy."

"I have examined carefully the catalogues of the regular medical colleges of this country, numbering 144, and found that of these sixteen have recommended the U. S. Pharmacopœia, while one mentioned the National Formulary."

"It is gratifying to record that at an informal conference called by Prof. J. P. Remington of the teachers in the medical schools of Philadelphia, the following resolution was passed: *Resolved*, That it is of the utmost importance for accuracy in prescribing and in the treatment of disease, that students of medicine be instructed fully as to those portions of the United States Pharmacopœia which are of value to the practitioner, and that members of the medical profession be urged to prescribe the preparations of that publication, and, further, that this resolution be forwarded to the medical and pharmaceutical journals and to the teachers of medicine and therapeutics in the United States."

"I find that many physicians are not acquainted with the contents, objects and meaning of the National Formulary. For the benefit of this class, it may be pointed out here that this neat volume contains many excellent formulas for the preparations, none of which have been as yet introduced into the Pharmacopœia, but which were formerly made after different formulas (in different sections of the country and also in the same city), and have come into established use."

"It may be asked why certain learned members of the profession should permit the use of their name by manufacturers of preparations foisted on the market solely for commercial reasons."

The last article in the symposium is by a physician of Fort Madison, Iowa. In racy and forcible language it criticises existing evils in a way that must cause the guilty to blush with shame.

All of this discussion and criticism applies to the old school profession. Certainly it does not help us to increase our respect of them as therapists. To express it mildly, it is a sorry sight.

Let us apply the lesson to ourselves. Stop criticising each other as individuals. Let us not find fault with our institutions, including under this title our colleges, our societies, our journals, and our literature in general. Instead of pursuing a campaign of destruction, let us organize a campaign of construction.

Let every man join with the organization, and march and shout for the organization. Let him not hold the organization up to ridicule, for in so doing he belittles himself. Should the organization fall, he must go with it. Above all things let us avoid pernicious criticism examples of which we have quoted.

A REVIEW OF SOME OF THE THERAPEUTIC ADVANCES OF THE PAST YEAR.

IN glancing over the medical literature of the year one cannot avoid being impressed with the fact that most of the therapeutic advances have been along the line of non-medicinal methods of treatment. The chief developments in the homœopathic school have been related to the effect of the homœopathic remedy in raising the opsonic index in various infectious diseases. The results of these experiments have been most encouraging and it has been demonstrated beyond doubt that the homœopathic remedy is capable of raising the opsonic index in many of the diseases investigated, quite as positively and as promptly as Wright's bacterial vaccines. For instance, Dr. Wheeler, of London, found his opsonic index to the tubercle bacillus ranged from .6 to .8. After taking one dose of phosphorus 3x a day for four days the index was found to be 1.4,

and in eight days 1.5. These figures were all recorded by Dr. Wright himself without any knowledge of what Dr. Wheeler was taking. The action of phosphorus in raising the index was repeated a number of times. Dr. Claude Burrett, of Ann Arbor, has likewise demonstrated the effect of echinacea upon the staphylococcus index, and Dr. W. H. Watters, of Boston, has studied a case of chronic diarrhea in which the administration of natr. sulph. caused a rise in the opsonic index to the colon bacillus and restored the patient to health.*

It might also be noted that independent of the work of homœopathists, Dr. Sajous has also demonstrated that medicinal agents are capable of raising the opsonic index to bacteria under proper conditions.

In the dominant school, both investigators and clinicians, have centered their interest on the treatment of disease by means of bacterial toxins and vaccines modified in various ways. The so-called "opsonic index" method of Wright has undoubtedly been the most popular, and according to many, the most promising method. If we were to accept as conclusive the statements made by Wright and his enthusiastic followers we would certainly be forced to the belief that the positive and unfailing method of successfully treating bacterial diseases had at last been discovered. Personally, however, at the risk of being considered somewhat pessimistic, we do not hesitate to say that it is our firm opinion that the opsonic index method of treatment as advocated by Wright, despite the laborious and painstaking work that is being expended on it, will never occupy an important place in practical medicine. We feel justified in this opinion for two reasons: first, because the technic is intricate and time-consuming, and second, because it is by no means proven that opsonic index is a complete and accurate index of the resistance of the human organism to disease. We do believe that Wright has established the fact that bacteria and their toxins when properly prepared and attenuated, are, under certain conditions, of therapeutic value in the treatment of bacterial infections, but we cannot see that he has established the necessity or the advantage of the complicated method he advocates. So far as we can see at the present time the principle of similia in the selection of the remedy and the administration of the vaccine in a quantity small enough to

*See *HAHNEMANNIAN MONTHLY*, December, 1908. "The Law of Immunity and Homœopathy," by W. H. Watters, M. D.

avoid an aggravation as the rule of dosage, are about the only two practical principles of bacterio-therapy that have been established so far. While these facts probably seem new and startling to Dr. Wright and his confreres, we do not need to remind our readers that they are as old as homœopathy itself and have been employed daily by homœopathic practitioners all over the world for more than a hundred years.

One of the important developments in bacterio-therapy during the past year has been the introduction of Flexner's serum for the treatment of epidemic cerebrospinal meningitis. This serum is injected directly into the spinal cord and in favorable cases brings about a rapid destruction of the diplococi. Flexner does not claim that this serum is a specific cure for every case of meningitis by any means, but by the early use of this agent the mortality has been reduced from 75 to 15 per cent. When used in the late stages of the disease the lowering of the mortality rate is not so decided. Flexner believes that so long as the diplococcus is still present in the meningeal exudate, and the mechanical damage to the tissues is not great, the serum will be of decided value.

Antitetanic serum has attracted some attention during the past year on account of its being widely employed as a prophylactic in wounds from firecrackers, etc., on the Fourth of July. The chief value of this serum lies in its prophylactic properties. The *Journal* of the American Medical Association states that extensive inquiries have been made into the treatment of those injured in Fourth of July accidents, and in no case, as far as could be learned, did tetanus develop in a person who had received an early prophylactic dose of the serum. In the treatment of cases of tetanus once developed the serum has given negative results. Unfortunately the vast majority of these cases die rapidly under any known form of treatment, the average mortality being about eighty-five per cent. The important preventive steps are, thorough opening and cleansing of the wound, giving it good, open drainage, and the early injection of the antitetanic serum.

Chantemesse has presented further reports on his anti-typhoid serum in which he claims that the mortality of the cases in which the serum was employed was only 4.3 per cent. as against a mortality of 17 per cent. in a large number of cases treated by other methods in the Paris hospitals at the same time. His serum is obtained from horses that have been re-

peatedly injected with typhoid toxins. In spite of the favorable reports of its originator the serum has not attracted much attention and most authorities consider it to be of doubtful value as a therapeutic agent.

Wright's report on the use of succinimide of mercury in the treatment of syphilitics affected with pulmonary tuberculosis has attracted considerable attention. The method he employs is as follows: An injection of succinimide of mercury (gr. 1-5) is given every other day until thirty doses have been administered. Potassium iodide, ten grains t. i. d., is then administered for three weeks. A week is allowed to elapse without medication and then the injections are given again. As a result of this treatment Wright claims there is a rapid improvement in all the symptoms and a clearing up of the physical signs in the lungs. Wright's claims have not yet been confirmed or refuted by other observers and it is perhaps too early to assign to the treatment its true value. It would seem, however, that some of the cases reported by him were beyond the possibility of permanent improvement and that he is inclined to overestimate the value of the proposed method. Bernart, who has made some interesting observations on this subject, believes that mercury, during the early period of its administration in this class of patients produces a decided improvement in the tuberculous process but that its continued administration causes a gradual aggravation of the tuberculosis. His views would appear to be more in accord with our present knowledge of the nature of syphilis and tuberculosis.

The value of amyl nitrite by inhalation in controlling pulmonary hemorrhage has received many corroborations during the past year. Three to five minims administered in this way usually stop the hemorrhage promptly. For small recurrent hemorrhages sodium nitrate has been found valuable providing the blood pressure is high.

Magnesium sulphate as a local application in acute inflammatory conditions has been strongly advocated by many observers. Tucker has had excellent results from its use in erysipelas. He applies it in the form of a saturated solution on several layers of gauze and states that in thirty-five severe cases thus treated all recovered within from five to seven days. The pain and burning are usually relieved in a few hours. Solis-Cohen has also employed local applications of this drug

with decided benefit in relieving the pain of acute articular rheumatism.

Tuberculin is an agent that has received more than usual attention both from laboratory workers and from clinicians during the past year. As a therapeutic agent it has not yet attained an undisputed place in the management of phthisis. It may be said, however, that those who are most competent to judge are more than ever convinced of its efficiency and since the importance of administering it in infinitesimal doses has become generally conceded the disastrous results following its administration have become fewer and fewer.

Another interesting fact regarding tuberculin relates to the various methods that have been proposed of employing it in the diagnosis of tuberculosis. The subcutaneous injection of this substance has been in vogue for many years especially among veterinarians. Among the newer methods may be mentioned the instillation of a dilute solution of tuberculin into the conjunctival sac, the so-called ophthalmic reaction of Calmette; the inoculation of the skin by scarification as proposed by von Pirquet; and the inunction of Moro's tuberculin ointment. A large amount of data has already been accumulated relating to these procedures and the advantages and dangers of each are now well defined. The inoculation method of von Pirquet is quite accurate in children and is free from danger. It is practically valueless in adults. The ophthalmic test is fairly accurate in both adults and children but so many unfortunate results have followed this method that its use is not recommended. Moro's inunction test is of little or no value in adults and not always reliable in children. With the exception of the von Pirquet test in children under two years of age we fully concur with Landis in the opinion that the subcutaneous method is still the most satisfactory in patients who can afford the necessary time. When judiciously employed in competent hands it affords a positive and harmless means of confirming or excluding a diagnosis of tuberculosis. This cannot be said of any other method that has been proposed up to the present writing.

Rest and exercise are two therapeutic measures that have been utilized since the very origin of the healing art. Rest particularly is a measure which man instinctively adopts in febrile conditions. And yet strange as it may seem physicians are sometimes inclined to underestimate its importance. Pa-

tients also are so anxious to resume their occupation that they do not get the rest they need. Bacteriological research has clearly demonstrated that many infectious diseases, once thought to be local, are in reality systemic infections and that many of them are capable of producing serious and permanent damage to the heart. While the importance of rest as a means of preventing valvular changes after rheumatic fever is generally recognized, we need to be reminded that as great care should be exercised after an attack of influenza, typhoid fever, pneumonia and other infections, for while rheumatism is more likely to produce changes in the valves the later conditions are more likely to cause degenerative changes in the heart muscle. Examinations of the blood-pressure after such diseases show that the tension is noticeably low during convalescence thus emphasizing still further the need of adequate rest. A very satisfactory working rule in these cases is to have the patient get out of bed and stand while the pulse is counted. If this procedure causes the pulse rate to rise from seventy to over one hundred, after a few minutes, the patient should be put at rest for a longer period. Both rest and exercise are valuable in the management of tubercular cases. During the acute febrile stage of the disease it is scarcely too much to say that rest is the therapeutic measure of supreme importance. Growing experience particularly during the past year, however, has shown that after the active stage of the disease has been controlled, carefully regulated exercise is as essential to secure good results as is rest in the acute stage. Walking and light out of door work are the preferable means of securing the exercise needed.

A review of the therapeutic progress of the year would not be complete without making mention of the fresh air treatment of pneumonia and other acute infections. First carried out in hospitals this method has now passed the experimental stage and its value definitely established. The principal effects of this treatment are to overcome toxemia and dyspnoea and to stimulate the circulatory and respiratory functions. Some observers have reported a decided lowering of the mortality rate as well.

It must be remembered, in connection with this method of treatment that it is fresh air not cold air that is needed. Stale air whether hot or cold is undesirable and it is necessary that the windows should be kept open day and night in order that

a free circulation of air may take place. Personally we believe that a suitably protected porch adjoining a room into which the patient's bed could be wheeled when necessary would be more advantageous than a room with open windows, as experience in the treatment of tuberculous cases has demonstrated that only exceptionally can we get an adequate supply of fresh air in the bedroom of an ordinary dwelling.

THE TUBERCULIN INUNCTION.—Moro, of Munich, in the *New York Medical Journal* of June 27, 1908, describes his method as follows:

The writer rubs into the skin of the chest or abdomen, over an area of 4 cubic inches, a piece of the following ointment of the size of a pea for about half a minute, and permits the ointment to remain on the surface of the skin to spontaneously absorb. The effect of this inunction is observed on the following day or later. The ointment is prescribed thus:

Koch's old tuberculin, 5 Cc.;

Anhydrous wool-fat, 5 grammes.

The result is positive when small papules appear over the area of the inunction or in its immediate vicinity, and negative when the skin shows no changes of any kind. With the positive reaction one often observes only a few very pale papules. Occasionally the papules are very numerous and red, and only exceptionally the skin in the region of the inunction is very much reddened and itches. The papules usually disappear at the end of a week. Other local or general symptoms have not been observed.

A positive result obtained by this method is as conclusive for a present or previous tuberculous infection as is that obtained by the conjunctival reaction or cutaneous methods of von Pirquet.

By comparing the effects of the author's method and that of von Pirquet upon a number of patients, the following differences were seen: (1) In advanced cases of tuberculosis the skin loses earlier its reactionary power to the inunction. (2) In cases showing no clinical signs of tuberculosis the percentage of positive results is much smaller in the inunction method.

As opposed to the conjunctival and subcutaneous applications the inunction is entirely harmless. The patients never object to its use.

The author's investigations have been only upon children. In the Munich medical clinics of Prof. Friedrich von Muller and Prof. Josef von Bauer, however, the efficiency of his method has been proved on adults. —*Therap. Gazette.*

GLEANINGS

THE TREATMENT OF MUCOUS COLITIS.—Ransome (*Liverpool Medico-Chirurgical Journal*, July, 1908) is a strong advocate of the Von Noorden treatment of mucous colitis. The essential feature of this treatment is to give a diet containing a large amount of cellulose in order that a large residue may be left in the bowels. The irritating effect of this diet is prevented by administering large quantities of fat in various forms.

In beginning the treatment the patient should be put to bed. At night from eight to ten ounces of olive oil are injected slowly into the rectum and retained until morning. If this causes pain an opium and belladonna suppository is inserted at the same time. The diet may be varied to suit individual cases, but in the main is as follows:

7 A. M.— $\frac{1}{2}$ pint milk-cream mixture.

8 A. M.— $\frac{1}{2}$ pint Kissingen water.

9 A. M. $\frac{1}{2}$ pint cocoa with cream, 2 ounces; bread, 2 ounces; butter, marmalade.

10.30 A. M.—Massage:

11.30 A. M.—12 ounces special soup; 3 ounces bread, 1 ounce butter; potatoes, green vegetables, baked apple, stewed pears, or boiled gooseberries; cream. Rest for two hours with hot bottle on abdomen.

4 P. M.— $\frac{1}{2}$ pint milk-cream mixture.

7 P. M.—Dinner, like lunch, but with 3 ounces bread and 2 ounces of butter.

9.30 P. M.— $\frac{1}{2}$ pint milk-cream mixture.

A description of certain items in this dietary may be found useful.

Milk-cream mixture: This consists of equal parts of milk and cream, and one teaspoonful of sugar of milk. The cream should contain 30 per cent. of butter-fat, and nearly a pint should be taken in the twenty-four hours.

Kissingen water: This is used as a stomachic, not as an aperient.

Bread: This must be of the coarsest flour obtainable. The larger proportion of husk it contains the better. The usual brown bread sold as a whole-meal bread is not sufficiently coarse.

Butter: The average total quantity should be $\frac{1}{2}$ pounds a day; 5 or 6 ounces of this is taken with bread, the remainder being used with the vegetables.

Special vegetable soup: This the writer considers to be the most important item of the diet, and should be prepared carefully according to the following directions:

Preparation of vegetable soup: Place a breakfast-cupful of lentils or dry peas in a pan in sufficient cold water to cover them, and allow them to soak all night. In the morning add a slice of fat bacon about 6 inches by 2 inches and $\frac{1}{4}$ inch thick, and boil for one hour. Put one teaspoonful of butter and one of flour into a small pan on the fire, add a teacupful of

milk gradually, stirring all the time until well mixed. Then add a teaspoonful of cream and mix with the pulp.

To vary the flavor of the soup, a sufficient quantity of green peas, spinach, asparagus, or other green vegetables should be placed in cold water and boiled for half an hour, rubbed through a sieve, and added to the soup.

The soup should contain all the husks of the peas or lentils, and should be more of the consistency of porridge than of soup.

Meat: This may be of any kind, but is more easily digested if prepared as follows: It is cut up finely with a sharp knife, and thoroughly pounded in a mortar while raw. It is then mixed with sufficient beaten-up white of egg and milk to make a thick cream, placed in a china cup, and boiled in a pan of water for three to five minutes, being well stirred during the process.

Vegetables: These should be of the coarse green varieties—cabbage, spinach, Brussels sprouts—well boiled and mashed with butter.

The massage is used mainly for two purposes:

1. During painful spasms of the colon, when very light massage of the abdomen, "effleurage," has a soothing effect, diminishing the pain.
2. Regular daily massage of the abdomen to improve the muscular tone of the bowel. To this may be added electrical treatment.

In addition, general massage is useful for promoting the general nutrition of the patient and for inducing sleep.

The result of this treatment is that after two or three days, during which there may be much painful flatulent distention of the bowels, a natural action of the bowels occurs—the feces being of a soft, buttery consistence, entirely different from the hard mass previously formed, and also different from the watery motions obtained by aperient medicines.

When a daily evacuation has been really established the patient may be allowed to get up for two hours daily and go for a walk or drive, but it is usually necessary to continue the treatment for at least six weeks. After this a gradual return may be made to more ordinary diet, but plenty of coarse bread, coarse vegetables, and fat should remain a constant constituent of the diet.

CACTUS GRANDIFLORUS AS A CARDIAC REMEDY.—Roland G. Curtin, M. D., in the *Therapeutic Gazette*, (Nov., 1908), calls attention to the great differences of opinion that exist among clinicians regarding the value of cactus in heart diseases. He believes that the failures of many are due either to the improper selection of cases or to an inert preparation of the drug. He states that the great trouble with many physicians is that they expect too much from this remedy. They think it should cover the whole field of cardiac therapeutics. If they have a case with a faltering heart, a heart that has defied the usual strong remedies, they try cactus grandiflorus, and because it does not immediately strengthen the exceedingly weak and perhaps dying heart they at once condemn it as being of no good whatever. This is not fair, for under the circumstances just cited it is, as it were, using a needle where a crowbar is needed. No one that has been properly instructed in cardiac therapeutics would call cactus a powerful tonic for the heart; for such is not the case. It is a mild cardiac tonic, a supporter and a steadier of that organ when in a weak and irritable condition.

Much of the ill repute of this drug comes from "substitution," or the dispensing of an inferior article, often made from other varieties of the cactus family, which are much less efficient.

His experience leads him to believe that it is useful in palpitation of the heart, and in irregularity, whether from the abuse of tea or coffee or of alcohol; also when the irregular heart is associated with heart-strain or any other condition, including dyspnea, hysteria, and hypochondriasis, as well as all emotional irregularities of the organ. It is sometimes beneficial in Grave's disease, when the heart is weak, irregular and rapid. In functional troubles it is particularly useful; and in the disordered heart associated with and following influenza he has found it of great value, as well as in cardiac asthma. It gives aid and comfort to the aged who are suffering, with disturbing circulatory symptoms, such as dyspnea, asthma, and a sensation of weakness in the organ.

The following conclusions are stated:

1. Be sure that a good reliable specimen of the drug is secured, one that has the proper strength; in other words, one that can be depended upon to do the required work.
2. Cactus is a mild tonic stimulant for the heart, especially acting upon the inhibitory nerves of that organ, relieving it of some of the unpleasant symptoms such as we often find in the nervously diseased heart. In any case it may subdue the discomfort and sometimes permanently relieve the pain in the region of the heart.
3. It is a valuable adjunct to the other well-known heart remedies, by steadying the heart and aiding its tone, helping to support the weakened organ. I want to emphasize one important point: remember that it is not a strong cardiac tonic or stimulant, therefore it should not be alone depended upon in a seriously diseased heart.
4. Those who expect it to take the place of digitalis do not, in my estimation, know the action of the two drugs, as they are essentially different in their action. Furthermore, cactus is in a class by itself, not being like any other heart remedy.

THE USE OF MERCURY IN TUBERCULOSIS.—Bernart, who has had a wide experience in the treatment of syphilis, gives the following summary of his views of the effect of mercurial treatment on syphilitics affected with pulmonary tuberculosis:

1. That the control of the active syphilis in many of the tuberculous patients seemed for the time to benefit the tuberculosis also.
2. That in patients with pulmonary tuberculosis, after the first control of the syphilis and if the treatment was continuously pushed, a few months would show a gradual aggravation of the tuberculosis.
3. That the genito-urinary tuberculosis patients, outside of the benefit to their syphilis, showed no improvement in their tuberculosis.
4. That two patients with tuberculous eye trouble were benefited, one markedly so and the other but moderately so. This is not surprising, as the intravenous injections of mercuric chloride exert a decided and beneficial influence over infections and ulcerations of the eye.
5. That the patients with pulmonary tuberculosis, evidently suffering from the absorption of septic materials, probably due to a secondary germ

infection, were decidedly benefited up to a certain point, after which, if the mercurial treatment was continued, their retrogression was rapid.—*New York Med. Jour.*, July 27, 1908.

RADIOGRAPHIC DIAGNOSIS OF RENAL LESIONS.—By Lewis Gregory Cole, M. D., New York. Besides making a positive or negative diagnosis of renal or ureteral calculi, much information may be gained by a radiograph having sufficient detail to show the kidney distinctly. The density, shape, size, and position may help very materially in making the diagnosis of tuberculosis, new growth, prolapse, and congestion of the kidney, and ascertaining the presence of the kidney on the opposite side.

The kidney may be seen more or less distinctly in about 75 per cent. of the cases, and if special care in technique and selection of tubes is used, it may be shown in nearly every case. Strange as it may seem, the size of the patient has very little influence—indeed, in large, fat persons it is more frequently seen than in thin ones. This may be accounted for by difference in density between the kidney and fat it is imbedded in; the more fat the greater this difference is. The soft tissues of some patients are much more dense to the rays than others, and where this is so the kidney shows very distinctly compared with the spine, which in these cases shows indistinctly.

The repeated appearance of one kidney and not the other, or the increased density of one compared with the other, or with the psoas muscle, indicates a change in the kidney, and if this density is uniform, and the kidney is not mottled, it is due, probably, to congestion of that organ. If the kidney appears mottled, or of irregular density, it would indicate tuberculosis or new growth, and if the contour of the kidney is changed in addition to the irregularities of density and mottledness, it increases the probability of new growth. Several confirmatory plates are necessary, and these shadows must be differentiated from the same things calculi are, particularly fœcal accumulations.

Size.—The size of the kidney compared with the opposite one may be fairly accurately determined, but it must be remembered that it is slightly enlarged in the radiograph. The amount of this depends on the distance of the X-ray tube from the kidney, and the distance of the kidney from the plate. In a person of ordinary size, with the tube eighteen inches from the plate, the radiograph represents the kidney about one-half to three-quarters of an inch larger than it really is. In some cases the pelvis of the kidney and the ureter show distinctly, but it is doubtful if this is of any pathological significance unless it is thickened and irregular, which would indicate tuberculosis.

The position of the kidney at the time the radiograph is made may be demonstrated very accurately if the position of the tube is considered. If the kidney is shown to be out of place, the diagnosis of floating kidney is positive, but if it is shown to be in its normal place it does not indicate that it is not movable, as the position of the patient tends to cause it to assume its normal position.

Resume.—The principal points that should be remembered are:

With a limited knowledge of the science, radiographs have been made which did not have sufficient detail to justify a negative or positive diag-

nosis, and persons without sufficient experience have made negative or positive diagnosis on these plates.

The separation of the X-ray into three varieties. The value of the direct in radiography and the detrimental effect of the indirect and secondary.

The interpretation of the plate is more important and more difficult than making it.

The amount of detail necessary for a negative diagnosis.

Technique, diet, clothing, catharsis, position, exposure, etc.

Necessity of making full sets of plates.

Reasons for believing that one is justified in making a negative diagnosis of calculus when detail as described is present.

Most patients having typical attacks of renal colic do not have stones, and, on the other hand, only very few of the patients who have calculi have symptoms sufficiently characteristic to justify an operation.

Similarity of symptoms of chronic appendicitis and renal or ureteral calculi.

About one-quarter of the patients in whom calculi are found have the most pain on the opposite side.

Value of the X-ray in the diagnosis of tuberculosis, new growths, and nephroptosis.

One cannot expect any great amount of success in renal radiography when work requiring so much attention to detail is turned over to hospital orderlies, nurses, or even physicians without any training or experience along this line.

IF A LEGALLY LICENSED PRACTITIONER takes account of his professional stock, his community interests and his ultimate ambition, and concludes that he will find more professional satisfaction, a greater financial success, or more social prestige by forsaking homœopathic connections, I see no reason for criticism of the man's professional character, or impugment of his honesty. Or, if membership in an old school society is unreservedly on the common ground of legal right to practice, if a man may work as he will, and where he has opportunity, so long as he transgresses no law of the Commonwealth, then membership in as many professional societies as time and income allow is distinctly good. But for a man who, out of his individual study and experience has reason to believe in the therapeutic value of studying the action of drugs on the healthy organism and the application of that knowledge to disease, for such a man to meekly submit to the dictation of a society in its demands to forego discussion, or mention, or affiliation with the term "homœopathic" is a curtailment of independent mentality which belongs to past generations of political and theological domination.—S. M. H., *The Clinique*.

CRACKED NIPPLES.—The *New York Medical Journal* (October 24, 1903) publishes the following prescription for a lotion:

R	Rose water	40
	Glycerin	20
	Sodium borate	8
	Tincture of benzoin	2

M.

THEORY, PRACTICE AND RESULTS OF THE SERUM DIAGNOSIS OF SYPHILIS.—
P. Fleischmann (*Dermatolog. Centralbl.*, Vol. XI, Nos. 8 and 9).

After fully describing the underlying principles and technique of the Wassermann reaction, the writer describes the practical results that have resulted from its use.

For the test to have a practical value it is necessary that a positive reaction should occur solely in syphilitic cases. This result has practically been attained. In 1,000 control cases of sera and spinal fluid of non-syphilitic cases, a half dozen only have given positive results. As control case, all forms of disease have been experimented with, so that it seems hardly possible that a group of diseases should be now found which would regularly give positive reactions.

For a reaction to be positive it matters not in what form the disease appears or what organ is attacked. It is the same, whether the lesion is a small localized process in the choroid, or whether the syphilitic manifestations are widely scattered, and attack the entire organism.

The writer examined 259 cases, in which only 193 gave positive evidence (from history or examination) of syphilis. Of these, 139, or 72 per cent., gave positive Wassermann tests, and 54, or 28 per cent., negative tests. A comparison with other results gave the following:

Blaschko-Citron, 79% positive.

Fischer-Meier, 123 cases, 83% positive.

Blumenthal-Hoffmann, 80 cases, 66% positive.

G. Meier, 181 cases, 81% positive.

L. Michaelis-Sener, 74.6% positive.

Bruck & Stern, 378 cases, 54% positive.

Nobl & Arzt (precipitation method), 81% positive.

Muller, 278 cases, 77% positive.

The considerable differences in these findings depend upon the percentage of cases that showed evidence of active syphilis.

The results in the tertiary period were as follows:

Fleischmann, 42 cases, 98% positive.

Blumenthal-Hoffmann, 88% positive.

Blaschko-Citron, 91% positive.

Meier, 100% positive.

Bruck-Stern, 57% positive.

Latent tertiary cases showed the following result:

Fleischmann, 55 cases, 42% positive.

Blaschko-Citron, 57% positive.

Bruck & Stern, 20.6% positive.

In syphilis of the central nervous system the writer tested 16 cases (Enderteritis, tabes), and found 13 positive reactions, or 81 per cent. In the examination of a much greater material Plaut obtained nearly 100 per cent. of positive reactions. In cases of paralysis Raviart, Breton and Petit obtained positive results in 93 per cent. of the cases.

Interesting figures showing the results of testing latent cases, e. g., cases without manifest symptoms, are as follows:

Positive results in percentages.

Manifest.	Early latent.	Late latent.	Author.
95	64	42	Fleischmann
95	80	57	Citron-Blaschko
98	55	55	Muller
71	20	20	Bruck-Stern

The result shows a decidedly higher percentage in cases showing symptoms of the disease. In the latent stages the number of positive reactions is decidedly smaller, and between the early and late stages a difference in favor of the first is apparent.

With regard to the influence of treatment, the following conclusions are drawn by Citron, who was the first to experiment in this direction: Citron states that the longer the syphilitic virus has acted upon the body and the more frequent the relapses, the more regularly and intensively does the syphilitic serum contain anti-bodies (e. g., gives a positive reaction).

Further, Citron concludes that the quicker the treatment with mercury is instituted, the longer it is continued; the more frequent the courses of treatment are repeated, the more suitable the method of treatment, and the shorter the period since the last course of treatment, just so much more often will the result of the test be negative.

In a number of cases a negative test before treatment becomes positive, after treatment of varying duration. In 18 out of 48 cases Muller saw after treatment a positive test changed to a negative one, or, at least, became less positive. Citron observes that early secondary symptoms and early relapses, by treatment of similar duration and vigor, show a greater tendency to become negative than late relapsing and tertiary cases. On account of lack of knowledge of the bodies contained in the syphilitic sera, it is not at the present time possible to say whether their disappearance means that the disease is cured. Why in a series of cases treated vigorously, some react positive and others negative, we cannot now say. We do not know how quickly a positive reaction can change to a negative reaction, from the influence of treatment. We do know, however, that a negative reaction can later become positive. The writer describes a case, at first negative, that later became positive, when new manifestations of the disease appeared.

As we do not know fully the nature of substances found in the syphilitic sera, the meaning of a positive and negative reaction remains uncertain. One thing is certain, that a positive reaction means syphilis. It is also practically sure that the bodies for which we test do not represent substances that are either protective or healing, as the test is most often positive when the disease is active, and often negative during or after a course of treatment. It is possible that we do not have to do with anti-bodies against the poison of syphilis, but with certain anti-bodies, possibly auto-cyto precipitins, excited under the influence of the infection.

From a diagnostic standpoint, the Wasserman test promises to give many practical results.

In many doubtful cases of disease it is of great importance to know whether at any previous time an infection with syphilis has occurred. In

the case of a primary lesion a positive reaction is conclusive of its specific nature, and probably shows that the virus has already become generalized. In these cases the serum test can rival examination for the *spirochæta pallida*.

The reaction will surely be of importance in aiding in the choice of wet nurses and in the examination of prostitutes.

The reaction will also play a part in medico-legal cases where a former syphilitic infection is given as a ground for divorce.

The value of a negative test is of much less importance than a positive one. Where there are no manifest symptoms, a negative test proves nothing. Where there are suspicious symptoms of syphilis, a negative test must be considered of more value.

No conclusions whatever can be drawn from the Wassermann test regarding the degree of infectiousness of a case of syphilis. Regarding the question of permission to marry, some weight may be given to the test. A positive test does not necessarily mean that marriage should be forbidden. Blaschko has described cases where the father of a family, happily wedded, free from lesions, who had contracted the disease perhaps 20 years previously, yet gave a positive reaction. In other cases, where the infection is more recent, no harm will certainly be done by advising an energetic course of treatment before giving consent to marriage. A negative test, in a candidate for marriage, must be considered as favorable, and a thing to be desired. From a negative test, however, no guarantee can be given that the patient will remain free of the results of his infection.

A complete cure of the disease cannot be guaranteed from a negative test. The reaction, as stated before, can change, and a negative test change to a positive one, with the outbreak of fresh manifestations.

A most important question to consider concerns the indications given by the test for beginning or ending treatment. Citron proposes that, instead of the usual chronic intermittent method of treatment, there should be a chronic intermittent examination of the blood, and that only when the test is positive should treatment be instituted. Such a method seems to the writer dangerous, as we know that in certain cases shortly after a negative finding that lesions appear, and the test becomes positive.

In old cases in which no manifestations have occurred for a long time, a positive reaction should be an indication for again instituting treatment. On the other hand, a negative test should not prevent treating a case where clinical experience has always shown treatment to be advisable.—*Med. Rev. of Reviews*.

RHEUMATISM AND CHOREA.—The close association between rheumatic fever and chorea on the one hand and rheumatic fever and an infective condition of the throat on the other have been recognized for a long time. M. de Ponthiere maintains, as a result of careful observations carried out for some years, that chorea is also closely associated with unhealthy and enlarged tonsils and adenoids. He is of opinion that chorea is usually a symptom of an autointoxication produced by the absorption of septic material formed in the naso-pharynx, the infection being usually of a rheumatic nature. He finds that removal of the tonsils and adenoids in such cases is invariably followed by cessation of the choreic symptoms. He points out

the analogy between the symptoms of the adenoid condition and those of the choreic patient; defective respiration, disturbed nights, night screams, dyspnea, defective intelligence, heavy aspect, digestive troubles, etc. The comparison is probably somewhat overdrawn and exaggerated, but it is fairly well established that the rheumatic infection takes place in a large proportion of cases through the throat, and an unhealthy condition of the nasopharynx may probably keep up the infection as well as offer a source of reflex irritation by which the peculiar choreic manifestations may be excited.—*The Hospital*.

ORTHOSTATIC ALBUMINURIA IN CHILDREN—Jehle (80. *Naturforscher und Aerzte-Tag*, Cologne, Sept. 22, 1908). This disease is of very common occurrence in children, and is characterized by the albumen excretion, instead of being constant, as in nephritis, making its appearance only when the patient leaves his bed and follows his occupation. As long as these children assume the horizontal position, they are free from pathological manifestations, but the excretion of albumen begins within a few minutes after their rising. The patients frequently complain of headache and lassitude; they are pale and languid, with a marked tendency to vomiting, also to fainting, in the severe cases. The lecturer discovered the cause of this peculiar condition to consist in a characteristic change in the configuration of the spinal column, a so-called lordosis. As soon as these children leave the recumbent position this curvature of the spinal column takes place, and with it the pathological excretion of albumen begins. The cause of this affection is therefore not referable to disease of the kidneys, or the nervous system, as hitherto assumed, but it may be explained by simple mechanical factors. The lecturer claims that as soon as the child is prevented from assuming the injurious position it may at once move about without any symptoms of disease; in other words, the child may be cured by a simple correction of the position of the body. The correctness of this observation was demonstrated by a number of experiments. Rapid improvement and recovery may be obtained by means of suitable orthopædic treatment, the wearing of a support or corset, and proper instruction of the patient's friends, whereas the former methods of treatment have proved inefficient. These children were rigorously guarded against all physical strain in the past without any benefit, whereas the lecturer's method of treatment permits moderate play and exercise without injurious results. The term "lordotic albuminuria" is proposed by him as the correct designation of the disease.—*Med. Review of Reviews*.

THE X-RAY TREATMENT OF EXOPHTHALMIC GOITRE.—G. E. Pfahler (*New York Medical Journal*, October 24) says there have been recorded in the literature at least 51 cases treated by the Rontgen rays. Of this number 42 cases were followed by good results. In nine patients there was little or no improvement. In other words, good results were obtained in over 75 per cent. of cases, with no risk to the patient and no great inconvenience. This is surely in marked contrast to the results obtained by other methods.

The treatment should be localized upon the goitre, and may be carried to the point of producing a mild dermatitis, but not more. The first dose should not be excessive.

The permanency of the results is still a question, yet all the patients in which good results had been obtained had improved or remained well up to the time of the reports, which varied from a few months to three years.

The earliest and most noticeable improvement is the increase in weight. This is followed by improvement in all the symptoms. The two symptoms that remain longest are usually the enlargement of the thyroid and the exophthalmos.

CONCLUSIONS.

1. Decided improvement may be expected in about 75 per cent. of cases.
2. This improvement consists of an increase in weight and strength, and gradual disappearance of the Basedow symptoms.
3. Some improvement should be noticed within a month, and after six to a dozen treatments.
4. When this treatment is properly given there appears to be no danger, and no objection exists to a month's trial in all cases.

CHRONIC APPENDICITIS IN CHILDREN.—J. Comby (*Le Bull. Med.*, June 10, 1908) finds that appendicitis in children is comparatively frequent, and is essentially a chronic disease which may have existed for a long time with insignificant and vague symptoms before the acute attack caused a diagnosis to be made. It occurs in well nourished children who have a hereditary predisposition to the disease, and in cachectic children who have been subject to intestinal and gastric troubles all their lives. Another class of patients is that in which adenoids, tonsilitis, and nasal troubles, with enlargements of the cervical glands are frequent. It is frequently associated with cyclic vomiting and mucomembranous colitis. The chief symptoms are indigestion, lack of appetite, pains in the abdomen, and constipation. Intestinal catarrh may exist instead. Infectious diseases are very apt to cause attacks of appendicitis. The differential diagnosis has to be made from enterocolitis, hepatic and renal colic, movable kidney, and dysmenorrhea and ovarian troubles in young girls. Many surgeons claim that an operation in the interval is demanded in all cases. For the milder cases rest, attention to the diet, and to the bowels is in order, as some cases become cured by sclerotic changes.—*Medical Record*.

CIRCULATORY DISTURBANCES IN DIPHTHERIA.—A comprehensive and lucid dissertation upon the cardiac disturbances of diphtheria merits special attention in view of the fact that this is a subject which as a rule is not well presented. Experts in diphtheria are not always expert internists and consequently they lack that broad grasp of the subject which a thorough acquaintance with internal medicine alone makes possible. It is from this standpoint that Howland speaks and his opinions are therefore worthy of most serious consideration.

A review of the studies of the diphtheritic heart by the various pathologists who have devoted special attention thereto shows that they all agree in the essential details, namely, that although thrombosis, endocarditis and pericarditis play an occasional role, the two chief lesions are parenchymatous and interstitial myocarditis.

Fatty degeneration is frequent and is the earliest change observed; it

may occur in the first few days. Granular and hyaline degeneration, either local or general, are later changes usually developing in the second and third weeks. Interstitial changes are the latest of all to develop.

Howland divides the circulatory disturbances into early, or those occurring during the period of local lesion and fever, and the late, which occur during convalescence.

Early Circulatory Disturbances.—Circulatory disturbances occurring at the height of the disease are extraordinarily fatal. The condition is most frequently encountered in older children and young adults in whom for several days the throat process has been neglected. The symptoms are prostration, pallor, rapid heart's action. Collapse sets in and is unaffected by heart stimulants. The heart, however, may continue to beat after respiration has ceased. At the autopsy the heart may show no abnormal changes of sufficient significance to account for death. Most likely there is in those cases paralysis of the vasomotor centre as the animal experiments of Romberg and Passler demonstrate.

Late Circulatory Disturbances.—These appear from the second to the fifth week or even later. The pathological conditions responsible for the symptoms are necrosis and hyaline degeneration and interstitial infiltration. These changes develop from the sixth to the ninth day, but it usually requires several days before they give rise to recognizable symptoms. Such disturbances are most frequently encountered in other children after severe infections which have been untreated for a considerable length of time, but it is astonishing to see after how mild a local infection trouble with the myocardium may occur.

The pulse is the first sign to indicate trouble. It drops with the temperature below normal and may remain there for several days before rising again. It may rise and fall successively. In some cases it remains persistently high. Howland believes that either of these actions "almost certainly means myocarditis."

The pulse may also show irregularity in rhythm or in force. The latter is by far the more important sign indicative of myocardial degeneration. Cases with a low and constantly falling rate offer the worst prognosis.

The heart may reveal evidences of dilatation and murmurs may be present. While a murmur may be the result of mitral insufficiency as a result of changes in the heart muscle, nevertheless there is great diversity of opinion in regard to murmurs and their meaning. Howland inclines to look upon them as of "accident" rather than "organic" nature.

Dilatation is difficult to demonstrate in children and he believes that this condition has been diagnosed too frequently. There is one sign, however, in which Dr. Howland places the greatest reliance in the recognition of myocardial disease and that is the alteration in the character of the first sound of the heart. In the absence of a murmur, signs of dilatation and pulse irregularity to warn us of danger this sign may be depended upon to betray the difficulty. The alteration consists in the more or less complete disappearance of the muscular element in the first sound, the valvular element remaining or this also may be diminished and even absent. The first sound, therefore, becomes "valvular" in quality and is pronounced cases embryocardia results. The point is well taken by the writer that "the absence of a normal sound or element of a sound is exactly as im-

portant as the presence of an abnormal ova, though not so apt to attract attention."

We are pleased to find that Dr. Howland has applied Graupner's test to these cases, which to our mind, is the only accurate clinical means of estimating the functional capacity of the heart muscles. This test consists in taking the pulse rate and blood pressure before and after a certain amount of physical exercise. The normal or compensated heart reacts by a rapid rise in pulse rates which in the course of a few minutes returns again to normal and by a more gradual rise in blood pressure which persists for a considerable length of time after the rate is again normal. Insufficient hearts react in various ways, such as by a failure in pressure rise or a persistence of increased rate. In one of Howland's cases the pulse rate rose and sank again shortly, but the pressure fell and remained subnormal for eighty-seven minutes.

The general symptoms are often striking. Pallor develops before there is a sufficient degree of anæmia to account for the same; indeed, it may develop over night. Apathy or irritability may be present. Vomiting may occur at any time and when persistent should excite concern. Loss of weight is also common even during convalescence, when the patient is taking a satisfactory amount of food. Howland has been led to believe that the diphtheria toxin exerts a powerful influence upon the child's metabolism. He found a marked increase in nitrogen excretion and considers it evidence of some marked influence which in the absence of fever or other disturbing factor must be referred to the latent effect of the toxin.

The Cause of Death.—Howland believes with Romberg, Krehl and others that myocarditis is the primary factor in the cause of death, as all of the circulatory disturbances can be referred to an insufficient heart muscle. Henoch, Strampell and others have sought to explain certain symptoms on the basis of disturbance with the cardiac ganglia, but, as Romberg says, it does not seem necessary to bring in factors which are so slightly understood when there are sufficient explanations in the muscle itself.

In regard to pneumogastric paralysis, Howland expresses himself as decidedly sceptical. He points out the fact that slow pulse, epigastric pain and vomiting may result from causes other than inflammation of the pneumogastric nerve, indeed the slow pulse rather points to myocarditis. In order to prove that the bradycardia was not due to irritation of the vagus Schmaltz administered atropin to some of these cases and obtained no response therefrom. Again, Howland calls attention to the fact that degeneration of the vagus has been demonstrated numerous times in cases which did not present this symptom—complex. We meet cases, however, in which the association of respiratory symptoms and a sound, rapid, irregular pulse gives every clinical evidence of an involvement of the pneumogastric—a form of post-diphtheria paralysis. No doubt, both the nerve and muscle are affected in these cases as Holt thinks, and it would certainly be wrong to entirely ignore the role played by the vagus in death from diphtheria.—*Jour. Amer. Med. Ass.*, Dec. 19, 1908.)

C. SIGMUND RAUE, M. D.

ON SO-CALLED RHEUMATIC IRITIS.—The author believes that very many of the cases of iritis, called rheumatic, are instead due to gonorrhea

and that the worst cases with few exceptions, have this origin. The patient, usually a man, generally over thirty, will ordinarily give a history of gonorrhea, though it may have been some years previously and he may or may not have had gonorrhea rheumatism. The iritis is severe. Its chief distinguishing features are: pain, often very severe, swelling of the iris, much photophobia, strong tendency for adhesions to form, though not much exudation, much ciliary and conjunctival conjestion, decided inclination to contraction of the pupil which strongly resists mydriatics of which there is a marked intolerance, tendency to increased tension, general intractability and an unlimited capacity for recurrences, continuing through any number of years.

He has never seen a case which he could with certainty say was gonorrheal iritis in a female. He believes that in many men who have had gonorrhœa there is left for years in some part of the urino-genital apparatus a very much attenuated virus which gives no trouble locally, but from time to time becomes very active and though setting up no local irritation is capable after absorption of causing inflammation in synovial membranes or in the iris. The treatment is unsatisfactory and there is no specific in this gonorrhœal form.—*Dr. C. Higgins, Annals of Ophthalmal.*

WILLIAM SPENCER, M. D.

THE DISSEMINATED SCLEROSIS COMMENCING WITH FAILURE OF VISION.—The writer speaks of the disseminated form of sclerosis in which failure of vision in one or both eyes is the first symptom of the disease, while other symptoms may not appear or may be very slight for a long period, even many years. The signs of chief diagnostic value in the early stage are (1) unilateral or bilateral visual failure with central scotoma in some cases and often with pallor of the optic disk, especially in the temporal half; (2) the Babinske or plautar reflex on one or both sides; (3) the irregular and shaky character of the hand writing, even when the tremor is so slight that it can hardly be detected; (4) the age of the patient, under 40 years. The absence of any cause for the affection and of any history of syphilis, the absence of pain and anesthesia and the presence of the knee jerks and pupillary reflexes are points of diagnostic value in its favor. In many cases after the visual defect has become marked there is a decided improvement or almost complete recovery of vision.

In other cases the visual defect remains more or less stationary, and early advances to complete blindness. The course of the disease is very chronic—often from ten to twenty years, often remains stationary for years. Remissions of long duration occur; occasionally there is apparent recovery.—*Dr. R. T. Williamson, Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

A NEW TREATMENT OF GONORRHEAL OPHTHALMIA BY MEANS OF BLENOLENICET OINTMENT.—The treatment consists in the putting of bleno-lenicet ointment into the conjunctival cul-de-sac. The ointment is composed of lenicet (a polymerized finely divided acetate of aluminum preparation) and envaseline, a vaseline, the melting point of which is raised by the addition of ceresin. The envaseline form a protective covering of the cornea

of at least two hours duration, while the lenicet produces both a coagulation and marked diminution of secretion.

In twelve cases of gonorrheal ophthalmia he reports nine recoveries without corneal complications, two where vision was reduced one-third, and one case in which a perforating ulcer occurred, reducing vision to counting fingers in three meters. The treatment in detail is as follows:

1. After everting the upper lid, 10 per cent. bleno-lenicet ointment (about the size of a bean) is introduced every two hours, day and night. The secretion visible externally is wiped away with moist cotton pledgits. If, as generally happens, the secretion has appreciably decreased at the end of 3-4 days,

2. Five per cent. bleno-lenicet ointment is employed, 3-4 times in 24 hours or oftener. If, at the end of 14 days or so, the purulent secretion has completely ceased,

3. Pure envaseline is introduced and one drop of a $\frac{1}{4}$ per cent. silver nitrate solution instilled once daily.

4. After the eye has become quiet, zinc vaseline ($\frac{1}{2}$ per cent.). Dr. M. Adam, Berlin. *Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

CATARACT; POSSIBLE PREVENTION, PROBABLE OPERATION, WHICH?—Leigh Y. Baker, M. D. For ten years or more I have advised all cases of incipient cataract to undergo treatment for the purpose of preventing, if possible, the advance of the disease; with this advice I argue as follows: "If the cataract progresses in the classic manner you will gradually lose your vision, and if the opacities progress equally in the two eyes there will be a period during which you will be practically blind. An operation can then be done which will restore your vision, altho to what extent cannot be foretold except in a general way; that is, you may have excellent vision or you may have much less than you now have. There is a possibility, however, that by treatment the progress of the disease may be checked and your present vision retained indefinitely. Then, too, a few cases become stationary without any apparent cause, but these cases are not predeterminable, as it is impossible to say in which class your case may be."

One great obstacle in the way of treatment lies in the patient himself, who is often unwilling to continue under a treatment which is necessarily long and tedious, but this fact does not in any way destroy the force of the argument that it is better in these incipient cases to try to preserve the vision rather than to restore it by operation at some later period when vision has been lost.

The first effect of treatment is to partially clear the haziness which has last appeared and thereby to a slight extent improve the vision; later the vision will fluctuate somewhat, but in effect should remain about the same as when treatment began.

In beginning treatment correct any refractive or muscular errors.

Avoid extremes of light and temperature.

Correct general nutrition.

My practice has been in every case to use some local application, and that which I have used to the greatest extent has been succus cineraria maritima.

This drug never has, never will, clear a cataractous lens, but it has alone, unaided by other means, either local or general, prevented the extension thereof and limited the disabilities therefrom in more than one case and therefore is worthy of use.

I have recently given much thought to the analogy between cataract and arteriosclerosis, but my observations have not been sufficient to enable me to draw any conclusions; I believe, however, that many interesting facts may be developed if we will carefully determine the blood pressure and condition of the arteries in each case of cataract.

Cases of cataract have been held in statu quo for at least seven years; more than half of the cases which have remained under my observation for at least five years have shown no increase in density. Some of the cases have shown an improvement of vision. No time is lost in any case nor does the treatment, even tho unavailing, reduce the chances for operative success; on the contrary, it increases the chances by improving the general health.—*The Hom. E., E. and T. Jour.*

ANTISTREPTOCOCCUS SERUM.—Mayer (Heiderberg) has carefully studied the results of using this serum in 30 cases treated prophylactically and 19 curatively. Aside from inducing eruptions, the serum had no bad effect, but the author also found that it had done no good. In the infected cases the temperature went as high as ever, and the general course of the cases seemed not to have been materially benefitted.—*Beitrag z. G. u. G.* Vol. 12, 155.

THEODORE J. GRAMM, M. D.

ENDOMETRITIS EXFOLIATIVA.—Ehrenfest closes his excellent article on this subject by saying that the deductions which can be drawn from his investigations are: Membranes expelled during menstruation in cases of so called dysmenorrhœa membranacea show the typical histological picture of the normal endometrium during menstruation. They resemble so closely very young true decidua that at times a positive differential diagnosis becomes impossible. The exfoliation of these membranes is not the result of an inflammatory process, but is due to an exaggeration of certain normal and physiologic changes in the menstrual uterine mucosa. At this time the endometrium is divided into two distinct layers, a compact and a spongy stratum. This differentiation is the essential factor in the process of exfoliation. The actual detachment is probably effected by degenerative processes or hemorrhages which destroy the thin interglandular septa of the spongy layer. If the internal os of the cervical canal is too small to permit the unhindered passage of the detached membranes, they are expelled by strong and painful uterine contractions.—*Amer. Jr. Obs.* Vol. 58, 412.

THEODORE J. GRAMM, M. D.

THE TREATMENT OF CHRONIC DISEASES OF THE UTERINE ADNEXA.—A spirit of conservatism has appeared abroad in the treatment of these cases. Forssner, in Stockholm, some time ago, reported 1,555 cases of adnexal disease, treated conservatively, with a mortality of 0.5%, whereas the percentage of mortality after operation is much higher, as is well known.

Fehling (Strassburg) later published an article wherein while criticizing some of the details of Forssner's statistics, he exhibits the same tendency to conservatism, and makes practically similar suggestions regarding treatment. Forssner does not advise immediate operation for all diseases of the adnexa, but does believe operation to be indicated when in spite of rest in bed and treatment, there is no evidence of improvement, and when the tumor does not diminish in size, and fever persists. In the milder cases it suffices to remove the diseased tube, while in severer cases, both tubes must be removed or the radical operation performed. He says fortunately the times have changed when every tubal case is operated.—*Beitrag z. Geb. u. Gyn.* Vol. 12, 339.

THEODORE J. GRAMM, M. D.

INJECTIONS OF IODIDE OF POTASSIUM INTO THE MAMMAE IN ECLAMPSIA.—In considering this subject, Sellheim says the assumption of abnormal chemical changes in the mammary glands, inducing an auto-intoxication from the toxins generated in the breast, suggested the treatment. The results until now obtained have, however, not been promising. Emptying the uterus being recognized as the first indication in treatment, this remedy is to be classed with lavage, enemata containing sodium bicarbonate, subcutaneous infusions, hot pack, &c. He reports a case which he thinks was materially benefitted. In brief the patient had had a number of convulsions and they continued after delivery, the patient's condition becoming progressively worse. In the midst of these bad prospects the above mentioned injection was given directly into the substance of the gland. It consists of 1000 cm. normal salt solution containing 1.5 gm. iodide of potassium. Within twenty minutes the cyanosis and general facial appearance had notably improved and in one hour free perspiration set in. The treatment was repeated three times at hourly intervals. Although it ought, perhaps, to be mentioned that fifteen hours elapsed before signs of returning consciousness appeared, yet the treatment appears to have turned the tide of events in favor of this patient.—*Beitrag z. Geb. u. Gyn.* Vol. 12, 501.

THEODORE J. GRAMM, M. D.

DYSMENORRHOEA.—Depending upon an observation of 700 cases, Maria Tobler has formulated the conception of dysmenorrhœa about as follows: In order to explain the menstrual pain in nulliparæ it is important to determine whether it existed from the time of puberty (primary dysmenorrhœa), or whether it developed later (secondary dysmenorrhœa). The latter is the more frequent (58%). Both primary and secondary dysmenorrhœa are often found in girls having constitutional disturbances, as chlorosis; in those in whom the first menstruation did not appear at the average time; in those engaged in occupations tending to interfere with their physical development; and finally in those where the chronic constipation proves that other organs are not properly functioning. In girls having secondary dysmenorrhœa the discharge is mostly profuse. In young girls the pain is usually premenstrual, being most acute during the first hours. The pain is not spasmodic, but continuous and often associated with other general symptoms. The local genital conditions found on examination are

not sufficient to explain the pain. The fact that the dysmenorrhœa of young girls is so frequently secondary is opposed to the idea of being dependent upon purely mechanical causes, such as stenosis or flexions. The theory that dysmenorrhœa is dependent upon nervous causes is not confirmed by the history or clinical course of the cases. It is more likely that in young girls the affection depends upon disturbed circulation in the pelvis. The passive hyperæmia induced by improper mode of living and dress, in conjunction with active hyperæmia of the menstrual process itself, combined with the deficient development of the elastic elements of the uterus, have as a result tension and compression of nerves, resulting in pain. It is probable that the site of the pain is in the subperitoneal connective tissue, and this view is in accord with clinical observations and with the results obtained from treatment. The dysmenorrhœa after marriage and after childbirth is mostly dependent upon changes in the genital organs. Even in such cases it is questionable whether disturbed circulation does not also play an important part.—*Monatsschr. f. Geb. u. Gyn.* Vol. 26, 801.

THEODORE J. GRAMM, M. D.

THE VOMITING OF PREGNANCY.—Dr. E. Schwarzenbach, of Zurich, has written an interesting essay on the ætiology and therapeutics of the vomiting of pregnancy, which appeared in the *Correspondenz-Blatt für schweizer Aerzte* for July 15. The well-known fact that this vomiting occurs especially in the morning led him, like others before him, to the conclusion that prolonged fasting was the chief exciting cause of the occurrence. The pregnant woman is afraid to eat because she fears that she will vomit. Thus is formed a vicious circle. The pregnant woman does not eat because she will vomit; she vomits because she does not eat. Our author, therefore, insists upon short intermissions between meals, even during the night, he has observed good results from the plan. A great deal of persuasion is often necessary to induce a pregnant woman suffering from hyperemesis to eat, but when she has once tried to eat small quantities about every two hours, even during the night, she will soon adhere to this schedule, and it will greatly benefit her and soon relieve her entirely.

This theory is not a new one. We know that the vomiting of pregnancy is a physiological act, and therefore medication is not likely to be of much help. Dr. Schwarzenbach now puts forward tentatively an explanation of this vomiting. He believes that even a light grade of hyperemesis gravidarum is a symptom of intoxication. A certain toxine of pregnancy, formed in the stomach, excites the mucous membrane of this organ, and thus induces vomiting. An empty stomach will react stronger, as the toxine is in concentrated form, while the contents of a full stomach dilute the toxine, which then cannot act so intensely. Washing out of the stomach in the morning after a prolonged suspension of eating will therefore be of great help. The place of this lavage may be taken by the drinking of a cup of fluid upon awakening, which fluid—tea, milk, water, etc.—will be vomited, thus expelling the toxine. The author thinks that the principal element of treatment for hyperemesis gravidarum, besides rest in the recumbent posture, is frequent feeding.—*Editorial, New York Medical Journal.*

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

PROVING OF ADONIS VERNALIS.—It is with pleasure that we refer in these pages to another effort of recent date to make drug provings, especially as in this instance, the experiments were made under all scientific conditions and controls. Only two provers were used, as it was not found possible to handle a larger number in the limited hours allotted to the laboratory work. Neither prover showed any symptoms from potencies. For sake of distinction, Dr. Hinsdale, under whose supervision the provings were conducted, gives the provers the names Clarke and Mudge. Clarke summarized his day-book as follows: But slight disturbance of the excretory functions, which cannot be attributed to the action of the drug, as the same is liable to be experienced by any person under normal conditions. The products eliminated were at no time appreciably altered, unless a slight constipation followed by a moderate relaxation of the bowels be put down as such. Much flatus was observed which was evidently caused by the drug. There was occasional pain in the epigastrium, relieved by doubling up or lying on the abdomen. Headache developed during the later days of taking the drug, evidently due to its action.

The head pains were mostly frontal over the eyes; slight lateral head pains were also felt occasionally. The appetite was not altered as in the case of Mudge. There was no unusual desire or dislike for certain articles of food. Sleep normal. Condition of skin normal. In but one particular did he develop a more decided disturbance than Mudge, and that was in his sphygmogram, which was altered the same as Mudge's, but has a higher wave, showing not so great arterial tension. While Clarke evidently experienced a physiological disturbance of arterial tone, he did not, like Mudge, have any subjective states which he referred to the heart or praecordial region.

Mudge did not show any symptoms until after he had been taking the crude drug for two weeks, and then there was an irregularity of the pulse, the rate being accelerated upon the slightest exertion. By the exercise of running up stairs, the rate was increased from 72 to 96. On Sundays, after singing in church, that is immediately after singing, his heart beat against his chest like a sledge hammer and there was slight tinnitus aurium, something he had never experienced before. Late in the course of the proving, when the dosage was from 35 to 40 drops, there was experienced a vertigo, which seemed to be especially noticeable upon turning the head quickly. During the last month of the proving, he ex-

perience a praecordial uneasiness which could not be described as a pain, but might appropriately be called a "consciousness of the heart." Along with this there was a feeling of a weight on the chest, with a frequent desire to take a long breath. Later the vertigo became more marked and was noticed upon lying down also. In fact, it was produced by any sudden motion or change of position. An abnormal appetite, especially noticeable towards 10 P. M., developed; with this was an obstinate constipation and a great amount of flatulency. There was a decided lack of thirst. Another symptom, which, however, might be accounted for because the prover was doing a considerable amount of desk work, was a tendency for the back to become tired easily and several times upon lying down, there was a dull ache in the small of the back.

The director of the pathogenetic laboratory reported that the blood pressures of the provers ranged from 120 to 130. The pulse in the case of Mudge was at times irregular and accelerated, especially after exercise or continued use of the voice. The average increase in pulse frequency was 10 per minute. Clarke showed about his normal average.—*Transactions of the Homoeopathic Medical Society of the State of Ohio*, 1908.

ILL EFFECTS OF ELECTRICITY.—*Morphia Sulph* has the symptom: "Ill effects of lightning; cannot suffer much heat afterwards."

Why not use this remedy in potency? If called to attend a person who has been injured by electricity in some way—some life yet there—the body not fully disorganized.

A suggestion, desiring verification: *Asafetida* and *Veratub* (Allen's repertory) have ill effects of electricity.—J. F. Edgar in *Medical Advance*, Dec., 1908.

ENFORCED CONTINENCE.—At meeting of I. H. A. an abnormality was reported as relieved and maybe cured, by *Conium*, the remedy being selected by comparative deduction.

Amelioration after coition, and for a short time afterwards.

Conium has aggravation from enforced continence and, reading between the lines, from that symptom *Conium* was selected rendering relief; whether it will be complete or not is to be demonstrated.

Camphora has relief of toothache, from coition, and might be considered if needed in that patient, or by Hahnemannians, for similar conditions with their patients; verifications are always useful.—*Ibid*.

TUBERCULINUM IS INDICATED IN PHTHISIS, when the cough is hard, sounds dry, but a profuse yellow sputum is raised with difficulty. It gives great relief from night-sweats when the other symptoms agree.—Dr. Anna D. Varner, in *Medical Advance*, Dec., 1908.

MEDORRHINUM.—My only experience with Medorrhinum has been in chronic pelvic disorders of women, and there it seems indicated when there is an offensive yellow, watery, leucorrhea, offensive menses and chronic pains in tubes and ovaries. I began using it for such patients in sheer desperation because everything else had failed.—*Ibid*.

GENERAL REMARKS ON USE OF NOSODES IN DISEASE.—We find the nosodes

often indicated in chronic skin diseases. And why not? Are not the large majority of diseases of the skin almost an infallible indication that the victim was born with a heritage the Lord never intended him to have Syphilis, gonorrhœa and tuberculosis are the most universal diseases known, and they have so weakened the human race that there is scarcely a family without some mark of struma upon it.

We do not agree with the prevailing idea that "a nosode should be prescribed for the result of a disease, just because it is a product of a disease." It should be prescribed when indicated. But we do believe that we will find them indicated even to their peculiar symptoms and aggravations, in patients, tainted in some remote manner with the disease of which they are a product. Tuberculosis is not an inherited disease, but the children of such parents are born tired, with lax fibre, low recuperative powers and susceptibility to changes in weather and diseases, in general. Young girls of such type are frequently afflicted with acne, and notwithstanding claims made in this body on former occasions by some of our most learned men, their complexions clear up under *Tuberculinum* or *Bacilinum* better than with the use of the flesh brush. I have known girls, most particular in their habits to scrub, scour and steam their faces most persistently with no results until they received the indicated constitutional remedy.—*Ibid*.

SYPHILINUM will be found of use in old chronic cases where the skin is rough, indurated, scaly, with large reddish brown itching patches something like psoriasis. In eruptions on very young babies when the stools are bright yellow Syphilinum is better than *Sulphur*, because more systemic. Psorinum of course has a very decided action upon the skin, and cures boils, urticaria, scaly or pustular eruptions in dirty, greasy looking individuals when the itching is aggravated by the warmth of the bed. Remember also its use in suppressed eruptions in nervous, debilitated subjects, easily startled and with great depression of mind.—*Ibid*.

PSORINUM is the nosode most frequently prescribed, because it has a symptomatology very similar to that polycrest Sulphur. The discharges of Psorinum are even more offensive than those of Sulphur, its eruptions more repulsive, its sweats, filthy habits and emaciation more pronounced. It is a slum-child remedy, one that I used much more in my dispensary than in private practice. The majority of the children of the poor who live in the crowded tenement districts are dirty, but it is the scaly, scabby, filthy children, offensive both in habit and appearance who need Psorinum. In the upper walks of life the Psorinum and Sulphur patients are less filthy—not that they love to bathe the more, but because of their training and environment they are obliged to keep clean. When you find children of this class, thin, nervous, listless, cranky, whining all the time, think of Psorinum.

It is an excellent remedy for cross babies, when there seems to be very little the matter, and other remedies fail. The most pronounced action of Psorinum that ever came under my observation was in a case of typhoid fever, where the temperature bid fair to go on and on forever. The child who was about eleven years old was emaciated to a shadow. All through her illness, she was sleepless, restless and delirious. In the seventh week

she was still tossing from side to side on the bed, whining continually, and picking at her fever-burnt lips. One dose of *Psorinum* smoothed her like an opiate and in a few days her temperature dropped to normal.—*Ibid.*

MEDICAL GYNECOLOGY.—As accidents and injuries, both external and internal, enter largely into the causation of gynecological conditions, such well known remedies as *arnica*, *rhys tox*, *cocculus* and *hypericum* come to mind.

Arnica may be used both internally and locally for extensive bruises or strains of the softer tissues. It is quick to relieve abdominal tenderness after a fall or a blow. Even cases of years' standing will be considerably benefitted by its internal administration, although the pathological changes may be such that other remedies may be required to complete the cure. But *rhys tox* is best when the strain has involved the ligaments of the joints, and especially if there is a rheumatic tendency, with marked relief from continuous motion. Since a large number of gynecological conditions may follow childbirth, the proper care of every woman during and after pregnancy is essential and *arnica* will be found to be frequently indicated.

Hypericum follows *arnica* well in serious injury of the spine and is indicated where the pain is very severe.

Cocculus acts well in secondary effects of injuries, when there is general weakness accompanied by backache, or simple weakness, which may or may not affect the abdomen, in which there is often a feeling of strain or displacement of internal organs. There may be vertigo, aggravated by changing position; nausea, vomiting and fainting; the mind is confused and dull, also apprehensive; headache in the occiput, extending down the neck and back, is characteristic of *cocculus*; menstruation may be early and profuse, followed by great debility; or late and very painful.

Of the many drugs especially adapted for the treatment of women, *sepia* and *pulsatilla* are among those most frequently used.

Sepia is indicated in those of nervous, sensitive temperament, usually slender, of dark complexion, and inclined to sallowness; venous congestion and weakness govern all conditions of the patient; moderate exercise, tending to relieve the congestion, gives improvement; violent exercise will overtax the patient's strength and increase or aggravate weakness and conditions causing same. Uterine prolapse is very marked in the *sepia* patient, and is aggravated by motion; there is backache and bearing down pains, as though the internal organs would be forced out; menstruation is usually delayed and scanty. With these symptoms, there may often be found some disturbance of the liver.

Lilium trigrinum also has many symptoms similar to *sepia*. Farrington tells us that "the uterus does not regain its normal size after confinement. When the patient rises to walk the uterus falls by its own weight. The patient complains of heavy, dragging sensation, principally in the hypogastric region." *Lilium* has shooting pains with the dragging sensation and frequently reflex heart symptoms, which help to differentiate it from *sepia*.

The *pulsatilla* patient is of mild, gentle, yielding and tearful disposition; often imagines she has numerous diseases; general aggravation by heat and

eating rich foods; relief follows when patient gets fresh air. This remedy is so commonly used for delayed or scanty or suppressed menstruation that it is scarcely necessary to mention these symptoms. Suppression usually follows cold or getting feet wet.

All these remedies have leucorrhœa; that of *pulsatilla* is thick and may or may not be excoriating, while *sepia* and *lilium* have a yellow, excoriating discharge.

Cimicifuga, or *actea racemosa*, acts best in patients who are predisposed to rheumatism. It bears great similarity to *sepia* in the symptoms of nervousness, restlessness, scanty menstruation and bearing down pains. There is also great tendency to neuralgia and occipital headache, seemingly reflex from uterine conditions; abdominal pains are sharp and cutting from side to side.

Both these remedies are useful at the climacteric: *Sepia* for the flushes of heat; *actea*, according to Hughes, "for irritation, pain at the vertex, and sinking at the stomach."

At times, when the well indicated remedy does not seem to be doing good work, a few doses of such deep acting drugs as sulphur, psorinum, thuja, or the calcareas, will hasten the cure. The patient will not always tell of the eruption which has disappeared suddenly, but the proper medicine soon establishes the fact beyond a doubt.

In cases of delayed menstruation, which suddenly develop some skin disease, but of which little or nothing can be learned, sulphur or psorinum will re-establish the flow and clear the skin.

For dysmenorrhea, many remedies are available. Where the patient is of rheumatic diathesis, and has constant, steady pains, or shooting from side to side, *cimicifuga* is indicated. *Magnesia phos.* may be used for membranous dysmenorrhœa, with ovarian neuralgia, worse on right side.

Belladonna for severe pain, coming suddenly; flow too early and too profuse; with this is usually found severe, throbbing headache.

Gelsemium may be used "in neuralgic and congestive dysmenorrhœa when bearing down co-exists."

The *pulsatilla* patient has great chilliness with severe pains; menstruation usually delayed and patient is tearful and depressed. This remedy is well known to be commonly used to assist in establishing menstruation in young girls.

Caulophyllum has "sensation as if the uterus were congested, with fullness and tension in the hypogastric region, spasmodic pains in uterus." Menorrhagia, metrorrhagia and the climacteric, all have remedies which cover the conditions perfectly; *arsenicum*, *belladonna*, *cinchona*, *carbo veg.* and *ipæcac* suggest themselves for the hemorrhagic symptoms, while *lachesis*, *sepia* and the *calcareas* apply frequently to the latter conditions.

The nosode remedies will be found to act beneficially in many gynecological cases of an obstinate character, as they seem to affect the organism more profoundly than ordinary drugs; thus we have psorinum for patients having a scrofulous or psoric diathesis; *tuberculinum* or *bacillinum* for those with a history of tuberculosis or the active disease; *carcinosis* for cases of known or suspected cancer; *syphilinum* for the syphilitic, and *medorrhinum* for those of gonorrhœal infection.—Dr. Margaret H. Beeler in *Progress*, October, 1908.

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

JODOGLINE, BROMOGLIDINE, GLIDINE, A NEW REMEDY OF DR. KLOPPER.—“Here we have,” says Dr. Comet Fargas, of Barcelona, three new therapeutic products which with modern science has been endowed. We have taken up the subject with interest because it has been introduced without pretention and with modest simplicity. The appreciation we have made of these products is reflexive, due to a conscientious clinical study of the same, which have given us favorable results, whenever their employment was indicated.

Modern clinicians and chemical biologists are in accord to admit that the metalloidal elements, *Jodium* and *Bromium*, possess such an activity that they even preserve it when in a high degree of attenuation, and so much is this so, that the actual tendency is to dissociate their atoms, and to break up their cohesion, thus obtaining better results of them, in this form. They may not dare to classify their power as dynamic, but they call it oligodynamic.

We shall not discuss the name, because we are only interested in simple, pure drugs, exempt from all toxicity and given according to the law of similars. Such type of drug we find in *Jodogline* and *Bromoglidine*. The first very efficacious in nutritive disorders, vascular troubles, arteriosclerosis; the second very useful in nervous maladies.

These remedies consist simply of molecules of *Jodium* and *Bromium*, disassociated by means of vegetable albumins. A practice which agrees perfectly with our criterium, and for this reason we welcome these remedies, which we hope shall be well received in Spain. Moreover, we may say that *Glydine* is a very assimilable and nutritive aliment, valuable during convalescence, atony of the digestive canal and other disorders forbidding other class of food.—*Revista de Medicina Pura*.

EMOTIVE NEURASTHENIA.—According to Professor Bianchi, of Italy, there is no malady, with the exception of hysteria, that presents psychic disorders so varied as those found in neurasthenia. He distinguishes three groups, the emotive, the intellectual and the somæsthetic, and asserts that the three pictures presented by the disease are not perfectly distinct, but that there is simply a prevalence of some phenomena, given the malady a predominant character. He further states that emotive neurasthenia is often developmental, and includes the following subgroups:

1. That of the melancholiacs, who have a sad turn of mind, are easily discouraged and generally weak, taking little pleasure in anything, showing little confidence in themselves, a tendency to isolation, indifference, inhibition, fits of anguish of monotonous ideative content, fear of death, and tendency to suicide. In slight cases there is pessimism.

2. The group of timid subjects, who resemble the foregoing. In these

patients discouragements and hypersensibility to every exterior stimulus in the social relations are predominant. If they have to speak in public they are seized with a vague fear, palpitation, real anguish, and clouding of the intelligence. This happens even to theatrical artists, students at examinations, &c., and hence such people avoid contact with the external world. During adolescence they blush and turn pale on the slightest occasion. In all their relations with their fellows, there is a prevailing tendency to subjection.

3. The third group is constituted of suspicious and jealous persons, whose dispositions vary with their temperaments. They are very numerous. At bottom the suspicion, jealousy, and envy by which these neurasthenic subjects, who are often querulous and malignant, are torn, have their roots in their own weakness, and in their uncertain knowledge of their relations to their environment. This form may remain unaltered for a whole lifetime, but it may also become the soil of development of delirious ideas (neurasthenic paranoia).

4. The erethistic form, including individuals who are often well developed in the sphere of the sentiments and the intelligence, but who are over-excited and greatly moved by the slightest stimuli, showing exaggeration in their judgment and actions, over which they cannot exercise proper control, and a useless expenditure of energy. They are violent, impulsive, become alarmed at trifles, and precipitate matters. Sometimes they are aggressive, and intractable both at home and abroad. This state is in contrast with their habitual goodness or serenity under normal circumstances. As a rule a gloomy disposition prevails, but, differing from melancholic subjects, neurastheniacs present greater variability of humour during periods of respite, and a constant marked weakness of the moderating powers. They furnish a certain proportion of the delinquencies of passion.—*Tratato di Psichiatria*.

INTELLECTUAL NEURASTHENIA.—This variety of the disease is summed up by Bianchi, of Italy, as follows: In intellectual neurasthenia the subject himself gives the measure of the loss. For some time past he has been unable to concentrate his attention. He reads automatically without understanding what he reads, and so he is obliged to read the same thing over again (distraction and divagation). He takes no part in conversations, because they weary him. He is no longer fit to look after the affairs of the house, because he is incapable of adding up a long account or of following a course of ideas for any length of time. His directive power over his thoughts is diminished, and other thoughts automatically break the thread of ideas, while whatever effort he can make to recover it is short-lived, and wearies him. This particular disturbance is almost "never absent."

The defect of memory is notable. The reproduction of images, of notions, and of thoughts is less prompt, less easy, and less faithful, so that errors of memory are frequent, giving rise to circumlocutions when he cannot find the proper word. The weakened power of association also shows the loss to the cerebral functions.

The products of synthesis are scarcer and of low value, the flow of ideas is checked, and the imagination is very poor. States of neurasthenia may

therefore be compared to states of protracted physiological fatigue. Just as the ergographic curves are not so high after protracted muscular labour, owing to exhaustion, so we find the same thing in intellectual labour. After a night of repose, or when the brain is better nourished by a well digested meal and adequate rest, it is more productive, the imagination is more active, images are more readily called up, and the patient makes more use of his intellectual patrimony. The lowering of the mental power may go to such a length as to produce real mental confusion—the neurasthenic stupidity of Ziehen and other authors. Sometimes this form of neurasthenia is latent and the subjects become aware of it only after a fast or after mental labor carried on longer than usual. In such cases the mind soon loses its habitual lucidity and wealth of ideas, and the sufferers are no longer in the position to express their own thoughts in due order, according to a prearranged plan. A discourse that was to have lasted an hour in reality, lasts twenty to thirty minutes, and often the most interesting matters are omitted. In these cases the threshold of fatigue is very near to the commencement of work.

Tormenting doubt coexist with this. It extends from incapacity to come to a decision when difficulties arise in important matters, to irresolution in matters of slight moment or where the course is clear, and in its last stage it is trivial doubt in all the simple acts of life. With the diminution of the reproductive and associated power there is often conjoined the tendency to emotive fixity of impressions. Any sensation of some intensity that determines states of emotion will remain for a long time in the consciousness. Many patients consult medical men specially or solely about tormenting permanence, in their minds, of impressions received. This is the rudimentary form of the malady of obsessions. These individuals are thus obliged to think of things they have no desire to dwell upon, and they can find no escape from these species of obsession, which lasts for hours and is renewed on every possible occasion by the most diverse causes. With this mental state there is found also a certain degree of aboulia with predominance of automatism.

With this weakness of the will, the sleep is usually changed. It is no longer restorative, but broken and filled with tormenting dreams that leave the subject in bad humor when he wakes; or after a few hours' sleep the patients, may waken with a start, with a vague sense of fear or with palpitation, and they cannot go to sleep again. The more intelligent, among them read, write or walk up and down their rooms, but the others remain in bed, constantly turning from one side to the other, and at length they become frantic and despairing, and begin to foster the idea of suicide. Many people consult their medical advisers solely for agrypnia or abypnia, and the anguish they suffer from it. Sometimes sleep overpowers them in the midst of their business, or, in the case of scholars, during lessons. This makes them despair all the more, especially as they cannot get a wink of sleep at night.—*Trotato di Psichiatria.*

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IS THE SURGICAL TREATMENT OF "BREAST TUMORS" THE BEST TREATMENT?

BY

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(Read before the Homœopathic Medical Society of the County of Philadelphia.)

FOR some time past I have not been at peace with myself in regard to giving advice concerning the advisability of instituting surgical treatment of certain breast tumors. We all know the difficulty of deciding upon the nature of a breast lump, and we know that in some instances, even after ablation, the report of the pathologist has not always settled the diagnosis beyond peradventure. It has been a mooted point with me whether every breast tumor, appearing in the female, should be removed, or not. The surgical advice to remove the tumor, I am fully aware, is largely based upon the fact of the impossibility, early at least, of always being certain of the nature of the growth, and fearing malignancy, the operation is recommended and performed. I am not quite satisfied with the logic of this recommendation as the best procedure, at least in certain cases. I have made, and possibly you have too, before operations, diagnoses of malignancy, that were not at all sustained at the operation, nor by the pathological findings subsequently. I have seen cases that bore all the ear-marks of malignancy, that were not so. I have seen cases also that appeared as innocent as a suckling, that were malignant. I am not satisfied that the patient was better off for having lost her breast, and being assured that the growth would not return, for our surgeons are

enforcing upon us every day the necessity of even operating a breast that has been the seat of abscess for fear the scar tissue will further develop signs of malignancy later. Do not operative scars offer the same invitation to carcinoma, as abscess scars or other irritations? The scars after operations for carcinoma seem to do so anyway. It apparently makes all the difference in the world whose ox is gored when the question of operation is suggested. Some of the very men who are so anxious to TEACH THE PROFESSION THAT EVERY TUMOR IN THE FEMALE BREAST SHOULD BE REMOVED as soon as it is discovered, are not so anxious to knife members of their own families, when these tumors are discovered. Let us look into the whole situation of breast "lumps" with a little common sense gray matter. The dictum of immediate operation for breast tumors is based, not only upon the great percentage of probabilities that a given tumor is cancerous, or will become so, but also, upon the implied assumption, at least, that the cancer is "local" at that time. Is it local? I grant you that there are a certain number of epitheliomata in other situations than the breast that are local cancers, so-called. I am personally, by no means always certain, that when you have found a tumor in the breast that you are almost certain is cancer, and that too, in an apparently early stage, and scientifically operable, and that there are not other growths in even more important organs than the breast, at the very time that we regard the tumor as most propitious for operation. Certain it is, from a large number of post-mortems that I have seen I have never yet noted a *single* cancer (even where the subject has not died of cancer but of some other affection) and I have seen these growths in the lungs, brain, liver, kidneys, intestines, and even in the heart, and they have not during life disclosed any symptomatic phenomena or physical signs by which they might have been recognized, and that might have put the breast case you propose to have operated at once, in the inoperable class. Is it not in some cases, at least, an assumption, that is partially or wholly unwarranted, that the breast cancer is the only growth and that the correct treatment is immediate removal? Is removal the best treatment for cancer of the breast? I am asking only for light. Even when it can be reasonably assumed that there is cancer nowhere else, and that the breast tumor is the only focus, it is a legitimate question to ask, whether it is the best procedure to remove that breast, notwithstanding the almost uncompromis-

ing attitude taken by some surgeons when a cancerous breast tumor is operated upon?

Are not so-called metastases far more speedy and sure to appear after the surgical removal of cancer, than if that cancer were left alone? Tumors which have only "scrapings" made for diagnostic purposes certainly grow with greater rapidity, even after this slight surgical and diagnostic procedure. Will the patient live longer, even if the breast is removed, than without its removal? Will she suffer more with the tumor in her breast, or out of it, admitting the necessarily fatal issue sooner or later? What are the statistics on this question? Are they not one-sided? They read something like this: Of 100 cases of breast cancer operated upon, there were no recurrences in situ or anywhere else in three years in ten; in twenty there were recurrences within three months to one year; the remainder of the cases are not heard from, or something like this. Of course these are not actual statistics. They will, however, serve to show that figures do not answer for the internalist the vital questions he must answer to his conscience when he advises his patient to be operated upon or not for a tumor of the breast.

In a question so vital to the welfare of the patient it does not seem wise, that the non-surgical doctor shall be governed altogether by his own experience, no matter how extensive, for even a few swallows do not make a summer. The internalist can learn lessons from the surgeon and from his fellow practitioners, and yet I fear that his one-sided experience, while not so extensive as those of the surgeon's, is not one whit less one-sided in reality than the surgeon's, who sees only the operative side of the case and rarely either its beginnings, its course, or its endings, and does not have the opportunity to watch the cases that have not been operated upon. He does not know how long the unoperated cases live. He does not know how much longer or shorter the period of suffering is in the unoperated cases, or of the inoperable cases he refuses to touch with the knife, nor how soon the growth extends to other parts. He really does not, and is not able to answer these questions, (the surgeon I mean) until he has compared his hundred operated cases, with a hundred unoperated cases, and both series studied in regard to length of life, the mean time of secondary growths and the amount of suffering. Until such a comparison is made, I shall not have the greatest confidence in following the advice

of the surgeon, to operate upon every tumor of the breast, for fear it may be cancer, for he has not yet proved to me that, even if the tumor is cancer, that he has surgically cured his case, that his operation has not made matters worse, rather than better; he has not proved that he has saved a woman greater suffering; or that he has prolonged her life. The recurrent cases he must compare with the time of the appearance of secondary growths in unoperated cases. The cases that have failed to recur within four years, and which he is proud to regard as cured, must be compared with cases that are clinically cancer, and which have not progressed and have not produced death within the same period of time.

These considerations have been forced upon me by the difficulty of deciding upon a wise course in some of these breast cases. Certain other factors enter into the decision also. I ask myself, how many of the tumors of the breast that have seemed to me innocent, and therefore not calling for operation in my view, in spite of the fear that they might be cancer or ultimately become cancer, have developed cancer? I recall but two, one of these after twenty years of innocuousness, another after twelve years, not a greater percentage than in other innocent tumors that have ultimately become malignant. I have kept no records, but this is the impression left upon my mind. I contrast this with the number of cases that have recurred very speedily, that is, within three to six months after operation, and I find that all the cases I supposed were cancer and had operated, all recurred, some as early as three months, and all the others within a year and a half. IN EVERYONE OF THESE CASES THE PATIENTS WERE RAILROADED TO THE OTHER SIDE. THE RECURRENCES AND SECONDARY GROWTHS APPEARED IN OTHER ORGANS, particularly in the mediastinum, and the suffering I have seen from this class has been something appalling. I would have regarded these sequences as simply the natural result of the progress of the disease (which surgery had vainly enough to stay) were it not for certain other observations I was able to make in cases not operated. For instance, a well-nourished patient consults me, middle-aged, and suffering from heart disease and Bright's, and tells me she has a lump in her breast, and that it annoys her a good deal. You look at her breast, and find a big scirrhus, fastened to the chest muscles, with numerous large axillary glands, and you know she is inoperable, for you cannot remove all the growth, and you find

she has noticed the tumor for two years, and you bury her three years later, with uremia, her breast tumor having remained stationary. While this has been going on, you have had an apparently healthy young woman consult you for a lump in the breast, which you are inclined to believe is a galactocoele, but finding no glandular enlargement, and a perfectly movable tumor, and fearing that it might not be galactocoele but cancer, you have her operated, and you find that it is cancer, and she makes a splendid getting up, wound heals by first intention, and three months later there is a recurrence in the breast, and cancer appears in the lungs, the liver, and mediastinum, and uterus, and she dies in two months a most horrible death. And too, while this is going on you have a case of primary cancer of the uterus, which is already inoperable at the time of discovery, and a year later symptoms of mediastinal pressure appear, and next the lungs, liver and spleen are involved, and she dies a horrible death two and a half years after you had discovered the inoperable cancer. While both these latter cases died awful deaths, the unoperated case was by far the worst originally from the extent and progress of the disease when first discovered, yet lived a year and a half longer than the apparently healthy cases operated upon on suspicion. The natural question is: Did not operative interference in some way directly hasten death? Did she not have secondary growths the sooner? Was she one in whom cancer was latent in other organs and only discoverable in the breast, and is that the reason she died so soon and had her recurrences so soon?

Here is an experience of mine: I was called in to diagnose a case of heart pain in a handsome, healthy-looking middle-aged lady. I found angina pectoris. While endeavoring to eliminate an external cause for the pain, and searching for the tender points of an intercostal neuralgia, I accidentally found a small tumor in the left breast. The woman was very much surprised and annoyed at my finding, and admitted that she had noticed it for two months. In the consulting room, I told both the doctor and the husband the angina did not scare me half as much as that tumor, and what to do with it. It was certainly operable, perfectly free, and there was no discoverable glandular involvement. I refused to give an opinion as to what should be done, because I was honestly in doubt, for the reasons that I have been giving you. I was not satisfied that removal was the best thing to do. I also said that if he would

call a surgeon, he would certainly be advised to cut it out. The patient recovered sufficiently from her angina to go away to the seashore in two or three weeks, and then they became worried about her breast lump, and a local surgeon scored me pretty badly for thinking that there was any doubt whatever as what was best to do with a breast tumor. He operated her. Before her breast was healed she was taken with "rheumatism," and removed to some spot or other, where the waters, and the massage and the electricity failed to cure her, and in three weeks she was brought home, a shadow of her former self. Her "rheumatism" was general carcanosis. I found growths in the mediastinum, lungs, liver, ovaries, and even suspected invasion of the spinal cord, and brain from certain spinal and pupillary symptoms. She suffered the torture of the damned from a toxic neuritis, "cancerous neuritis." It will take a good deal to convince me that operation did not hasten the development and speedy end of that case. The recurrence was so phenomenally speedy that no other inference was justifiable.

In a family somewhat closely related to the one of which I just have been speaking, I had ten years before diagnosed an adenoma in the breast of a woman then about thirty and did not have her operated, for at the time of the discovery, she was acutely ill, and besides had marked arteriosclerosis and was the possessor of a nervous system that would be seriously shocked by surgery, and she was advised against operation by another physician who stated that his mother had had a tumor like that in her breast for twenty-five years. This spring I had a chance of going over the chest of this patient for some cough symptoms and took an opportunity of looking up my adenoma of the ten years before, and found it had completely disappeared. So far as physical characters go, the tumor in this latter case, was extremely malignant, compared with the little lump in the other patient that I feared so much. I agree with the surgeons that it is difficult to make a diagnosis before you see the tumor out, but I am not so certain about the wisdom of taking it out for either diagnostic or therapeutic purposes. That is a matter I wish you to discuss. Are the internists unfair in asking for a little more light on the subject of the treatment of breast carcinoma? I think not. The dictum of operate at once upon the discovery of a breast tumor because of the impossibility of determining its exact nature (this being practically an assumption that the only successful treatment for

cancer of the breast is surgical), is not fully warranted. I think we have a right to ask for statistics that cover both sides of this question. Let them show us the natural history of unoperated carcinoma of the breast. Let them be sure that the ablation is the best thing that we can possibly do for these breast cases, and then we will not be in doubt as to what is best to do.

I am sure the surgeons want to be right in this matter, and have even suspected their own technic for some unfortunate results, or failures to cure that they may have noted, else they would not all be so glad to do the Halstead operation. Theoretically the operation is a model in thoroughness of surgical technic, and it ought to cure all curable cases, but even the best of operators have nearly the same, if not exactly the same results so far as recurrences are concerned, as with the apparently less thorough operations of former years. I recall a perfectly healthy looking woman, who had an insignificant tumor in her breast, who was subjected to this operation, with a wonderfully quick healing in record time, by first intention, who in three quarters of a year had a recurrence in the line of incision and within three weeks thereafter had the major part of the left lung and mediastinum involved, and with all the suffering induced by gross mediastinal pressure, looked still a healthy and handsome woman, without the slightest evidence, even in this secondary involvement, of cancerous cachexia. She died a brutal death.

Another case which it seems to me was made to die a little sooner by reason of operation, was in a woman with a breast tumor, undoubtedly, so far as human judgment can go, a scirrhus with moderate mediastinal involvement, in a woman, with phthisis pulmonalis, emphysema, dilated heart, and frequent pulmonary hemorrhages. Owing to her condition I refused to consider operation at all. In the following four months there was no apparent further progress except that the tumor appeared to be becoming more superficial, and looked as if it were about to ulcerate. She insisted upon operation at this point, and she, assuming all the responsibility, the operation was done. She nearly died upon the table, the operation was necessarily imperfect, but it cannot be blamed for what followed, for within six or eight weeks there was recurrence in situ and rapid involvement of the mediastinum, lungs, liver, spleen, and intestines, with paralysis of one of the vocal

cords. Here it seemed a fair inference that operation favored a quicker development of the disease. I regarded her as inoperable from the first, and perhaps she ought not to figure in any marked way in drawing conclusions as to the advisability of operation, for that idea had been negatived, but it may throw some light upon the question as to whether the operation did not actually hasten the inevitable and make that end more horrible than if she had been let alone.

I do not propose going into any suggestions as to how to treat the breast. My query is, whether it is better to let these breast tumors alone, and treat them as open wounds if they break down; whether to treat in some other way than by the knife, whether we do not have secondary growths more frequently and more metastases and more pain by reason of the irritation or some other inscrutable cause that seems to be directly connected with these surgical interferences, by reason of that interference.

I well know that certain cases of obviously clinically cancer really do not enter seriously into our discussion. We know some cases are inoperable but I am speaking of those cases for whom we want to give the best advice to prolong life as long as possible. We do not blindly wish to adopt a treatment that does not take into consideration the whole range of the disease. Admitting without question that the diagnosis of breast tumors is notoriously uncertain, and that cases that clinically look like cancer are not, and that simple tumors that look and feel very innocent are often malignant, it is questionable whether we ought to remove a tumor for diagnostic purposes, unless there is more than a reasonable chance that, if malignant, the tumor will not recur, or that, at least, operations will not promote secondary growths more speedily than they would occur in the natural evolution of cancer. The factors that we are now compelled to take into consideration, in view of limited and partial statistics from a surgical standpoint alone, are that there is no way of diagnosing any kind of breast tumor with certainty without the microscope; that there is no certainty whatever that cancer may be present in other parts of the organism and not give rise to symptoms or signs sufficient for recognition, and hence we have to assume in operable cases that the tumor is the only expression of carcinoma, and we further assume, it seems to me, that extirpation is the only treatment of carcinoma of the breast, and that only a very limited number

of cases do not recur. Are the vast number of women who suffer from breast tumors to be made to suffer from a quick recurrence for the sake of saving the very few who do not have recurrence. I do not know, gentlemen, whether any of these doubts have ever bothered you when you are determining upon what is best to do with an operable breast case, but they have certainly bothered me, and I wish the Solons present to help me, and other doubters, how to decide this sometimes vital question.

THE MODERN CONCEPTIONS OF HYSTERIA.

BY

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HYSTERIA may be defined as a psychosis, or so-called functional nervous disease, which, occurring usually in those predisposed by neuropathic heredity, is characterized by a peculiar type of temperament, perverted reactions to psychic influences, pathologic increase in auto and hetero suggestibility resulting in the presence of various "stigmata," and the possibility of the appearance of any one or more of a number of "accidents" dependent upon abnormal mental states.

This disease may occur in patients whose family history is excellent but is usually present as a manifestation of psychic instability due to ancestral alcoholism, epilepsy, migraine, consanguinity, hysteria, insanity or other neuropathic hereditary influences.

Females are more susceptible than males, Mettler ¹ gives the ratio as ten or six to one, possibly because of their inherent emotionalism and relative inferiority in logical reasoning and philosophical acceptance of the various nervous stresses of life.

The emotional disturbances characteristic of pubescence and the unstable psychic equilibrium of maturity naturally favor the onset of hysteria. This is shown by the following table, based upon the data Briquet and Landouzy.²

Age	10	20	30	40	50	60
Per cent.	8	50	28	10	3	1

As the French were the first to study extensively and write about hysteria it was formerly thought that this disease was but rarely encountered outside of France; but now that physicians

of other countries have become better acquainted with hysteria, and are able to recognize and to differentiate its major manifestations from other diseases, this erroneous idea is rapidly disappearing. However, it is probably true that this psychosis is somewhat more prevalent and more highly developed, because of their emotional temperament, in people of the Latin races.

The exciting cause (almost invariably some more or less profound emotional disturbance such as fear, grief, remorse or the shock of some traumatism), is followed by the immediate or late appearance of symptoms of the disorder.

As a result of psychic contagion those who are predisposed may acquire manifestations similar to those of others with whom they are associating. This is frequently observed amongst school children and in those who have acquired by imitation hysterical accidents identical in character with those of their parents. In hospital wards this tendency may be seen quite frequently. Psychic contagion, when widespread, may cause veritable epidemics of hysteria such as occurred so frequently in the Middle Ages and occasionally even at present. In this country the best known of these are the New England epidemic of witchcraft and those of dancing, convulsions, etc., that have appeared during religious revivals, particularly in the South.^{3 4 5}

The mental state of hysteric patients deviates markedly from the normal; and it is upon this continuous pathologic foundation that the paroxysmal "accidents" develop.

As a result of diminution of psychic inhibition the hysteric temperament is characterized by the patient's imperfect self control, increased or faulty reaction to mental stresses, a tendency to act upon sudden impulses, pathologic increase in suggestibility and inability to concentrate attention for any length of time. Emotional instability and perverted or increased psychic reaction is apparent in the hysterical attacks of crying, laughing, etc., which follow some trifling mental stress. Aboulia is more apparent than real. The will power is, in fact, perverted and its impairment is in the form of a localized or systematized aboulia. For example, in astasia-abasia there is inability to stand but when lying down the patient's co-ordination and muscular force are found to be normal.

In addition to defective power of attention there is a tendency towards interference with or unconscious prevention of

more or less automatic acts when the attention is directed to their performance. To a certain extent this is a normal trait, for most of our acquired reflex or automatic actions are better performed unconsciously.

The deleterious effects of conscious attention upon these actions is often to be observed in the gait of the student as he ascends the steps of the stage to receive his diploma; and is often apparent in the actor new to the stage. This fact is so well known that even the laity say, in such a case, that the person is self-conscious. The name attention neurosis has been applied by Isselin ⁶ to the mechanism of the condition of pathologic exaggeration of this normal peculiarity of the human mind. He shows its importance in the genesis of such conditions as stammering, insomnia, astasia-abasia and kindred conditions.

Another peculiarity of the faculty of attention in hysteria, designated retraction of the field of consciousness by Pierre Janet,⁷ is the inability of these patients to attend to more than one thing at a time; and to this abnormality is assigned the cause of many of the other symptoms of the disease.

Hysterics, being ego-centric and subject to morbid introspection, often display deterioration of altruism. The rare cases of pure hysteria do not exhibit this as markedly as the frequently observed type contaminated by neurasthenia or other psychoses.

There is an increase in the imagination so that, without any deliberate intention to deceive, facts are often exaggerated and statements may deviate from the truth. In some cases there occurs actual falsification of memory, the most improbable tales being related as facts believed by the patient. Gordon ⁸ reports the case of a girl who acted in the belief that she was one of the characters of a book she had read and who related events in the life of others in the belief that they had occurred to herself. Angell ⁹ writes of a case of hysteric dissociation of personality who related the most remarkable history of his past life, believing it to be true, which was afterwards proven to be subconscious fabrication.

One must not be misled by this peculiarity and conceive hysteria to be nothing but deliberate malingering for sympathy or like motives, for in reality it is a disease which borders closely on insanity and should be treated as such. Undoubtedly there is often present a desire for sympathy which may, becoming a fixed idea, result in actual associated malingering. Grant and Campbell ¹⁰ and Dieulafoy ¹¹ report two such cases. Thus

in Dieulafoy's case, an hysteric man, by chemical irritation, caused multiple recurring gangrene which was diagnosed as trophic ulceration, by a surgeon who amputated one of the patient's arms because of the continued recurrence of the condition.

The theories of the mechanism of hysteria are almost as numerous as the writers dealing with this subject. However, many of these theories, in spite of their apparent diversity, are, when critically examined, found to be but variations of the same fundamental hypothesis, modified perhaps by its expression in the terms of pathology or psychology according to the point of view of the writer. As an instance of this, certain groups of students of abnormal psychology contend that the manifestations of hysteria are the result of the activity of fixed ideas originating in painful submerged memories while others maintain that the symptoms are due simply to pathologic association of ideas.

Dercum¹² accounts for the phenomena of hysteria, on a pathologic basis, as being the result of isolation of various cortical centers due to retraction of the vesicular dendrites. This theory, ingenious as it may appear, will not account for all of the facts. For example, a tactile impulse from an anaesthetic member is not perceived by the patient (according to this hypothesis), because of isolation from the cord and the rest of the brain of the group of cortical cells which should have received the impulse. Now through hypnotic and other procedures it can be demonstrated that the impulse was not only perceived but also apperceived and perhaps followed by a motor reaction.

The New England school tends towards acceptance of the assumption that disintegration of personality is the cause of this disease, as well as others of the so-called neuroses. Donley¹³ includes under this mechanism neurasthenia, hysteria and multiple personality. Prince¹⁴ concludes that the symptom group known as multiple personality and hysteria are practically the same condition differing only in degree of development and that both are manifestations of disintegration of personality. He further believes that neurasthenia is merely one of the stigmata of hysteria.

The theory of dissociation is accepted by Dana¹⁵ and in confirmation of the belief of others, as to the psychic nature of hysterical symptoms, he writes: "The *disease hysteria* then, is a morbid mental condition in which ideas or emotional states seri-

ously and unwittingly control the body and produce more or less permanent and objective morbid states."

Suggestibility, which is a normal characteristic of the human mind and not a state, is offered as a cause by Gordon¹⁶ who asserts: "Whatever the manifestations may be, they are all dependent upon a special mental state which Gilles de la Tourette had justly called *suggestibility*." This phase of the question is considered by Claparède¹⁷ who offers three possible hypotheses as to the role of the exaggerated suggestibility characteristic of hystericals: (1) It may be causative, (2) an effect, of the same nature as the other exaggerated reactions present in the disease, or (3) an effect of inhibition.

The same author,¹⁸ endeavoring to explain the symptoms on a biological basis, holds that these are simply exaggerated or perverted reactions of self defense or repugnance. In a later article¹⁷ he defends the thesis that in hysteria painful memories and their associations are inhibited or suppressed by consciousness as a means of self defense. Syncopal attacks, due to total inhibition, are compared with the simulation of death as a means of defense in animals.

Sollier¹⁹ avers that hysteria is not a disease but a state which differs from those found in normal individuals "only by its intensity and especially by its permanence, its fixity."

Hysteria is considered, by Babinski,²⁰ to be a psychic abnormality characterized by manifestations capable of being artificially produced by suggestion and removed by persuasion.

According to Pierre Janet²¹ the most characteristic symptom of hysteria is somnambulism. This he assigns to be the result of cleavage or dissociation from normal consciousness of a system or systems of memories. When only one memory complex is dissociated the condition is termed *monoideic somnambulism*. *Polyideic somnambulism* and fugues originate in dissociation of a number of systems of memories, the most highly developed of which is multiple personality. He believes that many of the symptoms can be explained by the presence of a kind of exaggerated absentmindedness or abstraction due to retraction of the field of consciousness.

The most important advance in the study of hysteria was the recognition by Jules Janet²² in 1888 of the disintegration of personality present in this disease and the discovery by Pierre Janet²³ in 1889 of the importance of submerged memories and fixed ideas in its etiology, pathogenesis and treatment.

Since then many have studied the disease from this standpoint establishing the theory upon a broad foundation.

Breuer and Freud ^{24 25 26} believe that at least a rudimentary dissociation of personality exists in every hysteric and that this constitutes the fundamental phenomenon of the disease. They adduce facts which tend to prove that the manifestations are the result of subconscious fixed ideas derived from former painful experiences which were not at the time accompanied or followed by adequate reactions or expression by means of tears or other motor manifestations.

Through psychoanalysis, by means of association reaction time experiments, hypnotism, hypnodization (Sidis) ^{27 32} or automatic writing and crystal vision (Prince), ^{33 37} these painful submerged memories are discovered and are then brought into the patient's consciousness, which process together with an explanation of their etiologic significance (psychic re-education) and suggestion usually results in a cure.

Jung, ^{38 41} Binswanger, ⁴² Bleuler ⁴³ and others have also contributed largely in support of these views and in addition Jung ⁴⁴ has shown that this same mechanism is present also in dementia praecox. Brill ⁴⁵ has recently reported an interesting case of dementia praecox analyzed according to this theory.

It would appear that the primary emotional shock causes a degree of disintegration of personality which permits or results in the activity of painful submerged memories, together with increase in suggestibility, in causing manifestations.

The importance of autosuggestion and subconscious memories in the genesis of hysterical phenomena is well shown in Prince's B. C. A. ⁴⁶ case of multiple personality. As personality C this patient had seen a peculiar case of hysterical astasia-abasia. The co-conscious personality B (what might be termed an emancipated subconsciousness) became interested in the condition and later, while thinking deeply on the subject and wondering how it would seem to be in the same state, personality C became very excited and the condition developed in her. In Prince's well known Beauchamp case ⁴⁷ of multiple personality there were many similar incidents; such as the production of hallucinations and negative hallucinations by the co-conscious personality.

In order to better understand the mechanism of the activity of submerged memories in hysteria, it would be perhaps advis-

able, before continuing with this disease, to briefly indicate their importance in the daily life of the normal individual.

Dissociation of memory complexes per se is not pathologic by any means, but on the contrary it is a part of psychic development. Everything we do and all our thoughts are originated or influenced by memory complexes, most of which are more or less completely lying beneath the level of consciousness. In other words, we are constantly and usually unconsciously the slaves of our past and in this sense at least we have no "free will."

It has been said that we are simply conscious automata.* The philosophy of this statement is evident when we think that our actions and even thoughts are the hereditary and acquired reflex consequences of present sensory impressions (stimuli).

Spinoza † has said that: "—men think themselves free, inasmuch as they are conscious of their volitions and desires, and never even dream in their ignorance, of the causes which have disposed them to wish and desire."

If we should stop a moment to consider one of our most cherished beliefs we would perhaps not be able to recall the reasons which had led us to the adoption of that particular belief; yet we know that there were a number of influences which determined its growth in the beginning and which we cannot at present recall but which still subconsciously control us.

Ernest Jones ⁴⁸ in discussing this question writes: "We are beginning to see man not as the smooth self-acting agent he pretends to be, but as he really is, a creature only dimly conscious of the various influences that mould his thought and action,"

To illustrate the agency of subconscious memory complexes we have no better example than the "Frost King" episode in the case of Helen Keller.⁴⁹ When twelve years old Miss Keller wrote a story which she called the "Frost King," and it was published in one of the Perkins Institution Reports. It was afterwards discovered that this story was a duplicate in ideas and in places even words of another story which had been read to her three years before, or a little over one year after she had acquired the faculty of language (sign language). Miss Keller was utterly unable to remember having had this story read to her and was positive that hers was entirely the product of

*Huxley "Animal Automatism."

†Spinoza "Ethica ———." Elmes translation.

her own mind until convinced by the facts presented to her. This excellent example of unconscious plagiarism is almost paralleled by the Hindoo cycle in the case of Hélène Smith.⁵⁰

Maeder⁵¹ has shown that many of the automatic acts of normal daily life, even lapsus linguae, are the outcome of memory complexes, painful or otherwise, of which we are consciously unaware.

That a person may perform an act as the consequence of the activity of a submerged memory and think that he is acting from some other motive is not as improbable as it may seem for we can artificially demonstrate this apparent psychic anomaly by means of hypnotism. A hypnotized subject is given the post-hypnotic suggestion that after "waking" he will do a certain specified act. Now, if this subject be a somnambulist, that is one of the 50 to 80 per cent. of those who do not remember after "waking" the events of hypnosis, he will carry out the post-hypnotic suggestion without knowing that the act had been suggested to him during hypnosis. If he is asked why he did the act suggested he will perhaps hesitate a moment and then give some other and often inadequate reason for having done so. If questioned further he will assert that the act was done of his own free will because of this reason.

It is a recognized fact that among psychologists, and less technically even by the laity, that a memory complex of an experience is composed of a number of ideas and memories of the sensory perceptions that were associated with the experience. The complex as a whole and even the original motor reaction and its resulting (?) emotion may be revived by a psychic stimulus that causes recollection of the primary experience or any of its associated ideas.

Donley⁵² induces a law of transformation or substitution of stimulus: "When once the neural processes or psychological dispositions of a given association have been definitely established, this automatism may at any future time be set in motion not only by the original exciting cause, but also,—what frequently happens,—by any other of the elements which were essentially or accidentally associated with it."

A case that nicely illustrates this familiar mechanism was recorded by Carpenter⁵³ as follows: "Thus Van Swieten relates of himself, that, having chanced to pass a spot where the bursting of the dead body of a dog produced such a stench as made him vomit, on passing the same spot *some years after-*

wards he was so vividly affected by the recollection, that the sickness and even vomiting recurred."

Now by a kind of psychic short cut, occurring with unstable complexes, motor reactions and emotions may be aroused by a psychic stimulus that recalls an associated idea though the original experience may be forgotten in consciousness. In this mechanism the memory of the original experience has become subconscious but still influences consciousness. Now this is to a certain extent normal but in certain neuroses including hysteria it becomes exaggerated to the extent of being pathologic.

In fact in hysteria it is usual for the initial psychic trauma to be forgotten as a consequence of localized retro-antegrade amnesia the effect of which is inability on the part of the patient to assign a cause for the manifestations present.

A good example of this is the case of Marie reported by Pierre Janet.⁵⁴ This girl at every menstrual period became delirious, the flow would cease, severe chills appear followed by convulsions and terminating in haematemesis. She could not remember any cause for these conditions. Under hypnosis it was determined that at the first menstrual period at the age of 13 she, through shame, succeeded in suppressing the flow by plunging into cold water. This was immediately followed by a severe chill, then delirium and illness which lasted for a "considerable time." After recovering from this acute illness the menses were not re-established for five years. In this case the appearance of the flow induces the reproduction of the elaborated pathologic result of its initial suppression without however reviving the memory of the experience itself.

Morton Prince,^{55 56} followed by Donley⁵⁷ and others, has included under the term association neuroses the psychic mechanism of those cases in which there is not any amnesia for the original experience which subsequently developed pathologic reactions due to conscious association of ideas.

In the early studies on hysteria and in fact even to the present, stigmata are mentioned as a peculiar type of symptoms characteristic of hysteria when in reality the greater majority of these are simply the consequence of the only characteristic symptom of the disease, namely, pathologic increase in auto and hetero suggestibility. This veritable stigma has been the prolific cause of many blunders in the study of this disease; for it is by reason of its presence that any investigator can ordi-

narily and unintentionally cause whatever he wishes to find in defense of his views.

In the past at la Salpêtrière there was created a typical epidemic of hysterical convulsions, which influenced for years the study of hysteria, solely as the effect of an elaborate suggestive training and psychic contagion.

It has been conclusively demonstrated that because of this increased suggestibility, so invaluable for therapeutic purposes, prolonged, unnecessary and repeated neurological examinations of hystericals, their association with other victims of the disease and their demonstration before clinics, where they hear their symptoms and the disease discussed, create and prolong symptoms. Therefore one can readily appreciate the fact that these are most detrimental and that the close study and exploitation of these cases at la Salpêtrière has been responsible for an incalculable and irreparable amount of injury to them.

It is only recently that Babinski^{58 59} asserted, what many others for years have been intimating, that the stigmata of hysteria have no pathognomonic value and that they are solely the result of unconscious suggestion, usually of medical origin. These contentions have been accepted widely and much was said in their favor during the discussion of hysteria before the Paris Neurological Society.⁶⁰

By accepting these views we can interpret the classic stigmata as artificial creations, due to abnormal suggestibility, and as such they will have almost as much diagnostic value as formerly but their true significance will be better understood when they are elicited and in addition we will have advanced one step in the pursuit of the first cause.

For the reason that the mechanism of all the sensory symptoms is practically the same, only a few of the most commonly encountered of these will be considered; in order to indicate their psychic nature and to confirm some of the views already mentioned.

Anaesthesia usually occurs in the form of the glove or stocking types, disseminated patches or as hemianaesthesia. Any trauma may cause it by concentrating the patient's attention on the coenesthesia of the part. In some cases it follows a slight injury affecting a sensory nerve because the consequent numbness directs the attention of the patient to this symptom and unconscious auto-suggestion amplifies and fixes it. Anaesthesia usually accompanies hysteric paralysis as the effect

of the idea prevalent amongst the laity that a paralyzed member must "feel numb and dead." It frequently appears or disappears solely as the result of unconscious suggestion during a neurologic examination. This is accepted by Pierre Janet ⁶¹ who in writing of hysterical stigmata states: "Now, your examination alone will suffice to cause a real anaesthesia to disappear; now—and this is more serious—your manner of interrogating will create outright an anaesthesia that did not exist." "The study of the stigmata is made on no patients so well as on old ones, real pillars of the hospital, who have already been examined thousands of times." "When you have to deal with new patients, who have not yet been touched, you recognize with astonishment that anaesthesia is rarer, less important than Charcot said." "On this point I apologize myself, and acknowledge that under the influence of la Salpêtrière, I formerly attributed more importance to anaesthesia than I would do now."

It is significant that few hysteric patients have complained of or even been aware of the anaesthesia that is discovered during an examination in which it has been sought.

Babinski asserts that anaesthesias are always the result of suggestion during examinations conducted with faulty methods and in support of this mentions that he was unable to find a single case of hemianaesthesia among one hundred cases of hysteria examined by a technique devoid of suggestion.

"Ballet and Sonques declare that nowadays, taking these precautions, they never find the stigmata in hysterics who have not been previously medically examined." ⁶²

Even before these views were expressed many others had recognized the fact that medical examinations were factors prolific in the production of hysterical symptoms. Gowers,⁶³ for example, states that: "Medical inquiries and examinations often suggest to patients the definite ideas of symptoms, and the physician's knowledge of the natural association of symptoms may thus lead to their consistent grouping in a mimetic malady, even when there is not, and still more when there is, deliberate simulation."

Hysterical anaesthesias differ clinically from those caused by organic disease by their unstable but well defined boundaries, by their lack of correspondence with the anatomic distribution of sensory nerves and by the fact that they rarely occasion any impairment in the reflexes or use of the affected

part. These anaesthesias are purely psychic in origin. In fact the designation anaesthesia (without feeling) is, strictly speaking, a misnomer for the reason that the patient subconsciously perceives the sensation but is not consciously aware of it. In other words the percept is dissociated from consciousness.

That subconscious perception does occur can very easily be demonstrated by a number of ingenious methods. The easiest and most convincing of these is accomplished with the aid of hypnotism. An anaesthetic area is lightly touched a certain number of times while the patient is blindfolded. Upon questioning her, if a woman, the assertion is made positively that no stimuli were perceived. Then after hypnotizing her she states without any hesitation the exact number of times the anaesthetic area was touched. Another method, capable of being employed in a few cases, is to have the patient indicate automatically the number of stimuli.

During sleep tactile stimuli applied to an anaesthetic member cause reflex actions and possibly even remonstrances. It has also been observed that anaesthesia disappears during the exhilaration caused by drugs.

Janet ⁶⁴ has succeeded in obtaining the response "yes" when a normal area of skin was touched, the patient's eyes being shielded, and "no" when an anaesthetic area was likewise stimulated. This result was secured by telling the patient to answer affirmatively when the tactile impression was perceived and negatively when it was not perceived. Of course this procedure fails when the patient is intelligent enough to detect the inconsistency.

The same author ⁶⁴ records a case of total hysteric anaesthesia upon whom electricity was being employed for therapeutic purposes. One day it was noticed that on each application of the electrodes strong muscular contractions appeared as usual although the electrodes by accident had been disconnected and the patient could not see when the applications were made. Here then through unconscious auto-suggestion there occurs motor reaction to a supposed application of electricity even though the patient, by reason of her anaesthesia, was not consciously aware of the application of the electrodes.

Anaesthesia, in common with other manifestations of hysteria, may be transferred from side to side, modified, or even caused to disappear, (providing the patient anticipates such a result) by the application of metals, magnets or similar hypo-

thetic curative agents. These phenomena, the consequence of expectant attention on the part of the patient and suggestion on that of the physician, besides being additional evidence of the psychic nature of hysteric symptoms, are mentioned in order to indicate how easily one can misinterpret hysteric manifestations; for it was due to the above that many articles and books were written, in the last century, on the curious and remarkable therapeutic effects of metals, magnets, etc. In fact metallotherapy and magneto-therapy were widely practised about 1880 by many reputable physicians and at many hospitals including la Salpêtrière. It was this same principle that caused the vogue of Perkin's metallic tractors, electric belts and the like.

A peculiar type of anaesthesia, known as Lasègue's syndrome,⁶⁵ is that in which there occurs an associated motor disability of the anaesthetic member when the patient's eyes are closed or directed away from the part. This pseudo-paralysis is apparent only during the attempt at volitional movements; automatic acts not being impaired. This peculiar symptom may be explained by the assumption that, as a consequence of the disaggregation of personality, there occurs lack of synthesis, with consciousness, of the kinaesthetic perceptions in addition to the lack of synthesis of tactile perceptions more commonly observed. Clinically the result is similar to those advanced cases of *tabes dorsalis* in which the patient must watch the lower extremities in order to know where they are and to use them.

A number of sensory disturbances that may be present during recovery from hysteric anaesthesia have recently been described by Ernest Jones.⁶⁶ Under the term phrictopathic he groups the following six deviations from the normal: (1) abnormal persistence of a tactile perception, (2) delayed reaction time, (3) non-perception when a more normal sensation is present, (4) tendency for immediate motor response, (5) disagreeable quality, and (6) impairment of the sense of personal ownership.

The mental processes of sensory perception are divided by Jones into two groups, the first of which comprises those dependent upon the afferent esthetic impulse. The second group, designated auto-somatognostic, embraces the memory feelings and is naturally the basis of the feeling of sidedness and personal ownership.

If, during recovery from hysteric anaesthesia, the esthetic sensibilities (tactile, pain, cenesthetic, etc.) return first there results deficiency in personal perception of sensory stimuli, so that the patient describes these stimuli as being applied to a part that doesn't belong to his body. As an instance of this, Jones writes of a patient who said: "You are touching the back of some forefinger with a blunt pin; it isn't my finger and I have no idea where it is, but it causes an intensely disagreeable shudder to run all up one side of me."

Allochiria * and the other varieties of dyschiria or defective tactual localization are explained by the same author ⁶⁷ as being the consequence of the psychical disaggregation of hysteria. He further states that: "It is primarily an affection of the feeling of 'sidedness' (the chirognostic sense)."

After considering the above peculiarities of anaesthesia their interpretation can be more readily comprehended.

The conception of the modern school of abnormal psychology is that anaesthesia and other similar sensory disturbances are due to lack of synthesis of the perception with the conscious ego. In other words, there is a lack of personal perception, or to express this view less technically hysteric anaesthesia is, as indicated by Lasègue ⁶⁸ in 1864, but a result of pathologic exaggeration of normal absentmindedness, personal examples of which each of us can easily recall. All the other symptoms of this disease if we understood them properly would probably be found to be like anaesthesia, simply exaggerations or perversions of the normal.

Thermo-anaesthesia and analgesia are of the same psychic nature as anaesthesia and are subject to the same conditions.

Hyperaesthetic areas can usually be found, especially in the inframammary, ovarian and inguinal regions if pressure is there made and the patient asked if it causes pain. There is nothing remarkable about those hyperaesthetic areas called hysterogenic zones. These are the result of association of ideas with some former painful emotional experience that was followed by a pathological reaction. Pressure on such a zone calls up by association of ideas, the whole of the original mental state and precipitates a crisis, or attack, identical in character with the original reaction; unless modified by reason of subsequent accidents of like nature, in

*See case 4.

which case the crisis becomes a composite one. This mechanism is not usually known to the patient and in this event the original exciting cause can be determined only by some psycho-analytic method.

In almost every well marked case of hysteria concentric contraction of the usual fields can be found, or caused, by the use of the perimeter. This so-called stigma is now believed by many to be the result of unconscious suggestion in its elicitation. This does not necessarily mean that the examiner always suggests it by his faulty technique but that the examination *per se* is sufficiently suggestive to determine its production. In a number of cases which I have examined the fields were found to be approximately normal by the rough finger test but immediately after, on resorting to the more formal and imposing perimeter, concentric contraction was produced so pronounced in character that it would have been impossible to have failed in its detection by the previous finger test. Another fact indicative of the influence of suggestion is that the second field is frequently smaller than the first one. Spiral fields have often been observed in my experience when I have not said anything to the patient during the examination.* On the other hand it is easy to change a concentric field into one that is spiral by reason of the mode in which questions are asked during the examination.

The nature of these changes in the fields is indicated by the fact that they do not interfere with the actions of the patient.

To appreciate this one has only to compare the actions of a case of organic gun barrel vision with those of a case of hysteric contraction of the same degree. The organic case must keep his head in motion while walking or during other acts in order to compensate for the contraction whereas the actions of the hysteric case do not, in this respect, deviate from the normal.

Janet ⁶⁹ has seen a patient whose fields were narrowed down to a point, and yet was able to play ball in an apparently normal manner. It is unnecessary to state that this would be absolutely impossible in an organic case of contraction of the same degree.

The psychic nature of concentric contraction of the visual fields is readily and conclusively demonstrated experimentally. I have held an object in the blind portion of the field, in which

*See cases 4 and 5.

there was contraction as great as to 10° , and then asked the patient what the object was. The reply would be, "I can see nothing." Upon hypnotizing the patient the name of the object would be given without hesitation by him.* This method is a variation of one used by Janet.⁶⁹ By means of suggestion this author causes the patient to perform a certain act when a given object is seen by him. Now, by holding the object in the blind field the patient will execute the act previously suggested.

The same author⁶⁹ reports the case of a boy who had crises whenever he saw a flame. The visual fields of this boy were contracted to 5° yet a crisis could be precipitated by holding a lighted match at 80° , the patient being at the perimeter fixing the central point.

Finally, it is easy by suggestion during the hypnotic state in most cases, and by suggestion during the usual state of the patient in a few cases, to enlarge to the normal, more or less permanently, a contracted field; or conversely to create a contracted field in cases who previously possessed normal vision.

As the sequence of some unpleasant association the field for one color only may be contracted or absolute psychic amaurosis for that color may develop.

Hysteric amaurosis, an uncommon manifestation, may be unilateral or bilateral, paroxysmal or constant, complete or incomplete and may persist for years. The exciting cause is usually found to be some trauma, rarely other than trivial, which the patient *believed* capable of producing blindness.†

This accident, like all other hysteric accidents, often appears after a period of "incubation" of several days or perhaps weeks. The interval was designated the period of meditation by Charcot; and by others, the period of auto-suggestion. Because of its psychic character and in contra-distinction to the organic type due to atrophy of the optic nerves, the reflexes of the iris are unimpaired, with but few exceptions, and ophthalmoscopic examinations are negative.

*See case 3.

†In case 1 and case 2 this condition followed respectively the employment of the Wolff-Eisner tuberculin test, and prolonged and repeated perimetric examinations.

The genesis of amaurosis in these cases probably depended upon fixation of the patient's attention, caused by the tests, upon the visual apparatus and its coenesthesia, followed by unconscious suggestion during the so-called period of meditation.

Hysteric amaurosis has its analogues in the so-called negative hallucinations of absentmindedness and in the habitual voluntary suppression of the secondary image of diplopia in long-standing cases of strabismus. A common example of the former is encountered when a person whose attention is concentrated on some problem, passes his friends on the street perhaps even looking at them, yet fails to return their salutations. He subconsciously or automatically sees them; but there is that lack of personal perception that is requisite for conscious recognition.

To demonstrate the psychic nature of hysteric amaurosis by proving that the patient does see, and to differentiate this condition from organic blindness, hypnotic tests ordinarily suffice. The patient in the hypnotic state is able to give the name of an object that was held before his eyes previous to hypnosigenesis. When the amaurosis is unilateral the production of diplopia by the use of a prism proves conclusively that binocular vision exists. The letters of Snellen and the box of Flees determine also the presence of vision in the amaurotic eye during binocular fixation. Parinaud,⁷⁰ Bernheim⁷¹ and others originated experiments, based upon the results of fusion of colors, which prove that unilateral amaurosis is the consequence of the patient's unconsciousness of vision in the affected eye.

Naturally all experiments having as their object the proof of sub-conscious sensory perception will fail if the patient possesses knowledge of their mechanism and significance.

Hysteric deafness, analogous to amaurosis and anaesthesia in its production and psychic characteristics, is less frequently observed. As it is the effect of the patient's belief or fixed idea of deafness, Rinné's test must necessarily be positive though it is commonly understood that this indicates nerve deafness.* By means of hypnotic procedures, like other hysteric accidents of sensory perception, it can be demonstrated that the patient hears but is not consciously aware of the perception. In the examination of cases of hysteria, one usually discovers that though hearing is apparently normal, a deficiency is manifested during the test that is employed, or, in fact, whenever the patient's attention is directed towards the act of hearing. This deficiency of attention is also to be noted in tests for visual acuity and muscular force. For instance, an hysterical man in shaking

*See case 2.

hands, unconsciously may grip one with sufficient force to make one wince, yet a few minutes later on resorting to the dynamometer he may only register the gripping force of an ordinary child.

Psychic ageusia and anosmia are met with infrequently because the senses of taste and smell are less often examined in these patients and because these senses are less obtrusive and do not usually have so prominent associations with the primary emotional causes of hysteric accidents.

Hysteric mutism, the effect of the patient's belief in his inability to speak, may occur as the sole accident or in association with deafness and other symptoms.* An interesting case of mutism, following a slight electric shock, has been reported by J. K. Mitchell.⁷² The condition lasted over thirteen months and disappeared suddenly at the termination of an hysteric crisis. The only stigmata capable of being elicited were reversed color fields and anaesthesia of the pharynx and larynx. During the period of mutism the patient was heard to talk in his sleep and on one occasion he spoke automatically a few words of which he was not conscious.

Oettinger⁷³ records an unusual case of recurrent autohypnotic sleep, the longest attack of which lasted forty-six days, followed by deafness and mutism, which lasted for nearly four months and disappeared spontaneously without any premonitory emotional disturbance, with later development of hypomania. The peculiar psychic qualities of hysteric sensory deficiencies were even more apparent in this patient, for he was not at all inconvenienced by his auditory disability, being able, as he asserted, to read the lips of those who talked to him. The nature of his deafness was rendered more apparent by his inability to read the movements of the examiner's lips during silent speech, by his voluntary services in the children's ward when the babies cried and by several other inconsistencies.

Passing now to a brief consideration of a few of the more common of the motor manifestations, tremors, tics and rhythmical choreas, having similar characteristics, may be conveniently grouped. Having the same mode of production as other hysteric accidents, a searching inquiry will usually reveal the exciting cause to be some former mental stress, during which these accidents, occurring as normal or perhaps exaggerated

*See case 2.

emotional reactions, had become fixed upon the patient by auto-suggestion as a result of morbid attention and expectation.

For example, a hysteric barber while shaving a customer became excited and his hand trembled so that a severe incision was inflicted. As his business depended upon the steadiness of his hand the barber began to worry about this mishap and there developed fear and expectation of its recurrence. With this foundation what might be expected actually appeared; whenever the barber attempted to shave anyone, thought about doing so, or even fixed his attention upon his hand a severe tremor became apparent.

Hysterical paralyses and contractures usually follow some more or less trivial trauma and are dependent upon fixed ideas originating in auto-suggestion.*

Hystero-epilepsy, the term applied by the French to hysteric convulsions resembling epilepsy, and other types of convulsive seizures are most interesting and at times difficult to differentiate from epilepsy.† These seizures are characterized by a somnambulant state in which the patient experiences *de novo* some former emotional episode of her life, usually the exciting cause of the disease, together with a recurrence of the original manifestations or reactions, often exaggerated through repetition or modified by admixture with the results of other psychic traumata.

An individual subjected to a severe mental stress as one of the normal reactions or motor expressions develops a general tremor with its associated emotional state of fear, anger, etc., according to the nature of the exciting cause. Now, it is from these normal reactions that the exaggerated emotional attacks of hysteria are evolved. As shown by the work of Janet, Freud, Jung and others the memory of such an experience being painful is suppressed by the patient, but its presence in subconsciousness determines the repetition of the attacks. The reproduction of any sensory stimulus that casually occurred during the primary experience may suffice to induce a recurrence of the attacks, through association of ideas, though the original experience be lapsed from consciousness and the patient consequently unconscious of the association and ignorant of the reason for the recurrence. The convulsive period may be followed by stages of grand movements, clown-

*See case 5.

†See cases 3 and 4.

ism and delirium (*grande hystérie*) whose nature depend almost entirely upon the character of the hallucination or delusions of the patient at the time. The nature of these movements and the type of the delirium are in fact indices of the ideas of the patient during the attack.

Many cases of hysteric convulsions originate through psychic contagion.

It is my opinion that hysteria is rarely cured. The manifestations of the disease may be removed easily in most cases and the temperament to a certain extent modified, but all the accidents exist as potentialities that may become active at any time, providing there is sufficient provocation. The "cure" of these cases resembles the medical "cure" of acute appendicitis, in that symptoms of either disease may subside and even never recur, but we well know that the condition merely becomes latent.

As suggestion has been shown to be such an important factor in the production of hysteric accidents the physician should be constantly on his guard not to develop new symptoms by a faulty technique of examination; and in the treatment of these cases not to prolong the duration of those symptoms already present by an injudicious amount of attention directed towards them. The logical mode of treatment is that in which this symptomatic exaggerated suggestibility is taken advantage of for the removal of manifestations for which it is responsible and in this way to fight the disease with its own weapons.

As it is possible to reproduce in the normal individual every symptom or accident of hysteria by the use of hypnotism this agent when applied to the treatment of this disease is truly homœopathic.

All authorities recognize the necessity for the employment of psychotherapy. However, I will quote from only one conservative writer. M. Allen Starr,⁷⁴ in his text book on nervous diseases, writes as follows: "The key to success in the treatment of hysteria is the susceptibility of these patients to suggestion." ". . . hysterical symptoms are wholly mental and must be met by mental suggestion rather than by physical remedies." "Hypnotism may be tried in obstinate cases, and often gives brilliant results. It frequently fails."

(To be continued.)

THE BORDERLINE OF ABDOMINAL DISEASES.

BY

H. L. NORTHROP, M. D.

By the borderline of abdominal diseases I mean the edge (so often a ragged one, too) of the lesion, which up to a certain time or point is medical, and from which time or point it ceases to be medical, and becomes surgical. In other words, how long is the general practitioner justified in treating his case with internal medicines and local adjuvants? It is the well-informed and experienced practitioner who can make a correct diagnosis of an abdominal disease in the majority of cases, and it is also an experienced and wise practitioner who realizes that the time may come, and even is at hand, when he is failing to stem the tide of disease and his patient is not only not making progress, but is actually losing ground. In other words, what are the indications for operation in the more common, but none the less serious abdominal diseases? To operate or not to operate, that's the question, and it is often a momentous one and of difficult answering.

Let us take, for example, a gastric ulcer, a disease which is often attended by painful symptoms and serious consequences. At the same time we know that gastric ulcer is, in many cases, amenable to careful internal homœopathic medication and judicious feeding. Now, if in spite of this regime, faithfully carried out, the symptoms of ulcer of the stomach persist, the question of a more radical measure should be raised. It is not every case of gastric ulcer which has a stomach hemorrhage that should be operated upon. In fact the history of cases of this disease shows that where one pronounced, severe hemorrhage occurs, as a rule no other follows, and the symptoms of the disease gradually disappear. I would say then, that the physician is justified in continuing his medical ministrations for an indefinite time in such a case as that just referred to, and in encouraging his patient to look forward to complete relief and probably without the necessity of an operation. The treatment of ulcer in its early stages belongs almost exclusively to the physician; it is the chronic forms and the complications of the disease which call for surgical treatment. The point then, is this; that the case of gastric ulcer presenting a single severe

hemorrhage does not require a prompt operation, but is one of the hopeful ones. On the other hand, if the patient with gastric ulcer suffers more or less severely upon the ingestion of food, which perhaps must be abstained from to a great degree; who is losing weight because of suffering, lack of nutrition and loss of blood; who is a victim of slight, but oft repeated gastric hemorrhage,—such a case should be operated upon, but not until after a course of medical and dietetic treatment has been faithfully applied. When this stage is reached the role of the physician has been played, and it is his duty to recognize this fact, and ask the surgeon to perform a gastrojejunostomy, and thus by side-tracking the alimentary current and lessening the motility of the stomach, promptly bring about healing of the ulcer or ulcers. Here you see, we find no necessity for early or immediate operation; the physician and the surgeon can take a reasonable amount of time in deciding upon the demand for surgical interference. A different kind of a case, however, is one of gastric ulcer, which up to a certain point has progressed favorably, is running a chronic course, but suddenly presents severe epigastric pain, vomiting of blood, shock, and weak, rapid pulse, viz., symptoms of perforation of the stomach wall. It is true that in these days this is not an accident of frequent occurrence, but when it does happen, as happen it will sometimes, an immediate operation is called for. This word “immediate” should be properly understood and can be interpreted here when applied to the perforating ulcer, just the same as in perforation of the typhoid ulcer, perforation of traumatic origin, or serious injury to any part of the body, requiring operative interference. Such a patient should not be operated upon while suffering from the severe initial shock following close upon the heels of perforation. Sufficient time, say eight or ten hours, possibly less, should be allowed to elapse before an operation is undertaken. Therefore, until the arrival of the surgeon, or the preparations for the operation have been made, it is the duty of the general practitioner to apply restoratives and stimulating means to overcome the brunt of the shock.

In gastric carcinoma the borderline between the medical and surgical treatment in one sense is very indefinitely and faintly drawn, and in another, according to the views of many, does not exist. This raises the question: Is there a medical side to the gastric carcinoma in its early stages? If there is a borderline between the medical and surgical treatment of this disease,

it is, or should be, because a diagnosis of cancer has not been made. The difficulty of doing this is well known, but when once made, operation should be undertaken at once. If an element of uncertainty exists, or the case is regarded with suspicion, open the abdomen to find out. Here is where the real value of an exploratory operation comes in.

What has been said above regarding gastric ulcer applies equally well to duodenal ulcer. If the symptoms persist, if the patient is losing ground, if even slight and repeated hemorrhages occur, if blood is vomited and is also contained in the stools, the case is then more amenable to surgical treatment than to any other known means or method.

The subject of abdominal hernia is an interesting one, and to some homœopathic practitioners it has medical possibilities. More definite, however, is the borderline between the palliative and the radical surgical treatment of hernia. A hernia should perhaps, as a rule, be treated for a while by the application of a well-fitting truss, by internal medicine, and by intelligent muscular exercise for the abdominal and other muscles; attention to the stomach and bowels should not be overlooked. Such a plan is permissible and even advisable, if the rupture has but recently occurred. If it has and the same can be easily reduced, there are no special objections to the wearing of the truss, if the patient can be kept under control, and will obey his doctor. Of course, truss dealers claim many permanent cures from the wearing of their appliances. A patient with a hernia should be made to wear a truss if he is under four years of age, or if he has passed the more active years of his life, provided the hernia is reducible, and the point of exit through the abdominal wall is small enough to be effectually covered and protected by the pad of the truss. On the other hand, a young, healthy individual, with years of activity and hard work in prospect, should not be subjected to the annoyance and harnessing effect of a truss, to say nothing of the ever-present possibility under the use of this retentive means, of irreducibility and strangulation. The percentage of permanent cures in uncomplicated cases of inguinal hernia by radical operation is 95 per cent. (this is a conservative estimate), while the mortality from the operation is only 9-10 of 1 per cent., excluding cases of strangulation. But I do not believe that the average surgeon secures a permanent cure in 95 per cent. of his cases. Here is an operation which may not require more than ordinary skill for its per-

formance, but it does require every possible attention to details within the power and range of the operator. In other words, it is one thing, and a simple one, to ligate a hernial sac and close the wound; and it is another thing and oftentimes a very difficult one to so treat that sac and close that wound as to prevent a recurrence of the hernia, or to at least reduce its possibility to a minimum. Generally speaking, every able-bodied man under the age of 50 (and I place the limit low) who has a rupture, should be advised to submit to an operation for its radical cure. Let it be remembered that femoral and umbilical herniae are more serious in a general way than inguinal hernia, inasmuch as they are more prone to complications, particularly strangulation.

But a different story is to be told when the hernia is irreducible or strangulated. Irreducibility is a positive contra-indication to the wearing of a truss. Under no circumstances can there possibly be a borderline between truss and surgical treatment at this time. The case demands surgical intervention, and that it must have without delay. It requires but a few short hours of the use of the means to overcome strangulation to decide upon the necessity of obtaining surgical relief. I am sometimes amazed at the dilatory methods practiced by some physicians while treating cases of abdominal rupture. It should never be laid at the door of a physician of the twentieth century, that he delayed operation until the appearance of reversed peristalsis and fecal vomiting.

Although not ordinarily considered an abdominal disease, but attacking an essential part of the alimentary tract, the subject of hemorrhoids deserves brief mention, and I believe you will agree with me that it has both a medical and a surgical side. I wish to show you that it is a borderline disease with a clean cut line of demarcation between its medical and surgical treatment. A hemorrhoidal tendency is quite common among people of constipated and sedentary habit, to say nothing of those (and their number is almost legion) who are constipated either by choice or by indolence; and this disease is subject to relapses and exacerbations, to acute and subacute attacks, and it is at these times and in the intervals that internal and local medical treatment is of marked value. Beyond a shadow of a doubt, medical treatment can and does cure hemorrhoids. It should therefore be given a faithful trial, if the patient provides the opportunity. Hemorrhoids require operation when associ-

ated with that painful spasm and irritability of the sphincters, called sphincterismus with which, too, an anal fissure is often associated. Such cases are usually of rather recent development and the hemorrhoids are apt to be of small size. Excruciating pain, more or less constant and aggravated by defecation, exists, and may also be due to the presence of a thrombus, which, caught by the sphincters, complicates matters. The administration of medicine or the use of palliative measures here is a mockery and an insult. The clot constituting the thrombus must be removed, the sphincters must be dilated, and the fissure must be curetted or cauterized. Should the hemorrhoids be of long standing, both internal and external, of large size, and ulcerated, with a discharge of blood and muco-pus, radical surgical treatment, perhaps by the injection method, preferably by the clamp and cautery, should be instituted. In other words, painful, irritable hemorrhoids and large, long-standing hemorrhoids are the ones for surgical removal, though it may be honestly said that there is no positive contraindication to operation in any case.

Changing the subject, I appreciate the fact that gall-stone colic is relieved and the passage of gall-stones is facilitated and made easy (comparatively) by the administration of medicines. I will never forget a brilliant example of this sort, where a patient of mine, a gentleman upon whom I had just operated for an ischio-rectal abscess, developed an acute gall-stone colic. I prescribed a homœopathic remedy for him (I forget what it was) and no relief following, I gave him morphia. A second and third dose of this doped my patient unsatisfactorily, and dulled the pain for the time. I called Dr. O. S. Haines in to prescribe for this man, inasmuch as I realized my homœopathic incompetence to deal with the case. Dr. Haines did not continue the morphia, but he did prescribe bryonia 30th, and the patient was promptly and permanently relieved. This is what compels me to call attention to the established fact that gall-stone colic is amenable to homœopathic treatment.

It is true that an acute attack of gall-stone disease is not as serious as an acute attack of appendicitis, or as some other abdominal diseases, viz., pancreatitis, intussusception, etc. It is believed that a gall-stone may pass through the cystic, hepatic or common duct without occasioning any special illness or doing any serious damage, or may attempt to pass but be forced back into a position of repose, the attack of pain ceasing and

the stone remaining quiescent and innocuous for an indefinite time. All this gives confidence to the general practitioner, and he continues to prescribe for his patient who is fair, fat and fifty, until repeated attacks of pain, to which is added persistent local tenderness and distress in the interval, compels him to believe with the world's best medical and surgical authorities, that there is no medicinal or dietetic cure for gall-stones, or preventive against their recurrence, and if the disease persists that here as in so many abdominal conditions, it is up to the surgeon to mechanically remove the mechanical cause of the pain and of the inflammation, infection, etc.

Kehr, of noted reputation as a gall-stone surgeon, and whom I had the pleasure of meeting several years ago, says that the necessity for operation for the removal of gall-stones is absolute under the following conditions: (1) In acute purulent cholecystitis and in chronic obstruction of the cystic duct, internal treatment being useless in either case; (2) in persistent colic or continuous pain, when internal treatment gives no relief, particularly when it renders the patient unfit for work, or if the patient has developed morphine hunger and himself desires operation; (3) when a firm gall-bladder tumor gives rise to a suspicion of carcinoma, and when there are signs of perforation or suppuration in the surrounding parts. To these indications for operation from such an eminent authority, we may add those pointing to a ball-valve stone in the common duct, in which there is intermittent jaundice and its effects upon urine and stools, not forgetting the possibility that persistent jaundice may mean a stone impacted in the common duct, although the persisting jaundice is usually regarded as strongly indicative of malignant disease. In passing it may be remarked that only 14 per cent. of cases of gall-stone disease at any time display any evidence of jaundice. A significant fact.

To illustrate the difficulties attending the making of a positive diagnosis in cases of this sort, permit me to report the two following:

Case 1:—Miss S, age 69, had been persistently jaundiced for eight weeks, but had suffered only a moderate amount of pain in the upper abdomen. Her attack commenced with "indigestion" and vomiting, but these symptoms and the pain quickly subsided and the jaundice alone gave evidence of a hepatic disturbance. She was weakened and prostrated, had lost flesh and strength, and appeared to be either cachectic or toxic,

or both. Dr. W. H. Yeager, her physician, had made a diagnosis of gall-stones and from the evidence in the case I had to agree, although I was strongly suspicious of malignant disease. Upon the operating table I found a contracted gall-bladder containing a rather colorless watery fluid, but no stone. Further examination resulted in the discovery of a single stone the size of a hazel-nut, in the common duct behind the duodenum. The stone was fixed in the duct, to whose wall it had become tightly glued, and I had great difficulty in removing it. I sutured the duct, drained the gall-bladder, and the patient recovered. I feared a stricture of the common duct because of the ulceration and cicatricial changes in its wall, and there was some indication of this several weeks after the operation in an aggravation of the jaundice and several grayish stools. A soft rubber catheter passed into the duct through the gall-bladder seemed to overcome any further tendency to obstruction, and the patient's recovery promptly followed.

Case 2:—Mr. E. R. K., age 69, had an attack of gastric disturbance including vomiting and epigastric distress (not pain) twelve weeks ago. Shortly after a general jaundice appeared and has persisted uninterruptedly and unvarying in degree until the present time. His stools are clay-colored. He has localized tenderness to the right of the median line above the umbilicus. There is no tenderness beneath the right costal border, and none in the back. His physicians, Dr. Porch, of Philadelphia, and Dr. A. Barnes Hooe, of Washington, D. C., agreed with me that probably Mr. K. had a cancer obstructing the common duct, while one of the physicians inclined to the diagnosis of common duct stone. At the operation I found a distended gall-bladder (which is strongly indicative of pressure upon the common duct from without, and not pressure, which at the same time means irritation and ulceration and consequent cicatricial contraction, from within). This alone was evidence against common duct stone, and further exploration revealed a very much enlarged head of the pancreas, which was nodular and indurated. This corroborated our suspicions of carcinoma, now found to involve the head of the pancreas. The only surgical step for me to take was to drain the gall-bladder externally, and to close the wound. This patient died in three weeks of exhaustion. No autopsy was held.

The lesson to be learned from these two cases is that in either one of them a diagnosis of common duct stone or carci-

noma was plausible, but no matter which or how much in doubt, the borderline was clearly drawn, and the time had come for surgical treatment.

When shall we operate in acute pancreatitis? The answer to this question is, as soon as the diagnosis is made, and make it as soon as you can. How can acute pancreatitis be diagnosed? Let us take a typical case: The patient is a fleshy alcoholic male who suddenly suffers severe pain in the upper abdomen, vomits and goes into a state of partial collapse,—pallor, cold sweat, subnormal temperature and rapid, thready pulse. In other words, symptoms also indicative of acute perforation of some abdominal organ, and with abdominal distention, muscular rigidity, persistent vomiting and locked bowels supervening, presenting symptoms strongly simulating bowel obstruction. And this diagnosis is the one so frequently made by the attending physician, and oftentimes corroborated by the surgeon. I have just recited accurately a case brought to Hahnemann Hospital by Dr. F. O. Gross. An immediate abdominal section with an incision in the median line above the umbilicus revealed free brownish peritoneal fluid and innumerable areas of fat necrosis scattered over the surface of the omentum and mesentery. Our suspicion of an acute pancreatitis was verified by these findings. The patient, a bull-necked alcoholic, was all but moribund, and his condition prohibited anything further than laparotomy and drainage.

The following case presents a picture of sub-acute pancreatitis: Mrs. C., age 48, short and fat, a patient of Dr. G. W. Newman's, was brought to Hahnemann Hospital with a diagnosis of gall-stone disease. She had had symptoms warranting this conclusion for nearly a week, and there was a history of previous "gall-stones." She was slightly jaundiced and had suffered severe pain in the upper abdomen. I found her with symptoms indicating a serious inflammatory lesion of the bile passages, or pancreas, or both, and opened the abdomen through the right rectus muscle above the umbilicus. Disseminated fat necrosis was the first thing to attract my attention and I promptly found the cause of it in a greatly enlarged pancreas, particularly the head (the part of the gland most frequently attacked). There were no gall-stones. This patient was likewise almost moribund, and all I had time for was to hurriedly drain the gall-bladder and pack the wound, also for

drainage. She reacted fairly well but died in six days. A post-mortem was refused.

The point to be scored by reporting these two cases is that the majority of cases of acute pancreatitis die, yet immediate operation offers the best outlook. Therefore, diagnose this disease early, and operate early. Drain the peritoneal cavity and bile ducts, and if the patient's condition will permit it, incise the hemorrhagic or suppurating areas in the pancreas, and drain them also through the anterior incision.

Next, when should a movable kidney be operated upon? I acknowledge a borderline between the mechanical and the operative treatment of this affection, but is there a medical side to it? I know the ultra-homœopath claims that there is, and that he can, with his internal medicines, "shorten the ligaments" of a loosened kidney. And I also know that his views on this subject are not accepted by the majority of his fellow practitioners.

There are two recognized methods of treatment of movable kidney, viz., mechanical support and nephropexy. The former should be tried first in practically all cases. The indications for operation have been very much restricted of late years, which means that nephropexy is not performed as frequently as it was, while nephrectomy for movable kidney has become almost an obsolete operation. It necessarily follows that the physician falls back on mechanical support to give relief to his patient, at the same time recognizing the frequent concomitant condition of gastropptosis or enteropptosis, which also needs support, and which can hardly be overcome by fixation of the kidney alone. Such cases should wear a broad elastic abdominal belt with a convex pad placed so as to make added pressure below the rib border on the side of the renal displacement (usually the right). This belt should be applied while the patient is recumbent with the lower extremities flexed, and should be so fitted as to make greater pressure below than above.

Operation should be resorted to in these cases after treatment by apparatus, diet, and hygienic regime has been tried and fails to relieve; when the mobility of the organ is great or is increasing and when definite localized pain and symptoms of hydronephrosis occur.

The subject of appendicitis is not worn threadbare, and never will be. One would think that every practitioner and surgeon, after all that has been said upon the subject, would be

fully cognizant of the borderline between the non-operative and the operative treatment of this disease. Not so, however,—“the more’s the pity.”

One morning recently, a physician asked me on the ‘phone, “When can you come to operate upon a young man with appendicitis?”

“I can come now, at once,” I replied, “if it is necessary.”

“Oh, no, don’t hurry,” he said, “any time this afternoon will do. The man’s family have made the diagnosis, and they insist upon an operation, but there is no need to hurry.”

Six hours later I found purulent serum in this young man’s abdomen, and an appendix which was adherent to the margin of the pelvis and “ripe” from base to tip,—on the verge of tissue strangulation and gangrene. There was no “need of hurry” in this case; the family had “made the diagnosis,” and wanted the operation. The patient recovered,—thanks to “the family.”

Many physicians of all schools of practice claim a medical and expectant side to the treatment of appendicitis, and I will not be so unkind as to insinuate that there is not, or that cases recovering under medical treatment do so by coincidence, because I know better. It is true that every case of appendicitis does not need to be operated upon, but where is the borderline between those which do and those which do not? Sometimes this line is well defined and clearly drawn—many times it is not. If it is not, err on the safe side, and the safe side is operation in the vast majority of cases. The length of time from the onset of the symptoms, in other words, the age of the attack, *and the progress which the symptoms are making*, whether towards resolution and subsidence, or aggravation and fulmination, often give reliable information. The relative value of the cardinal symptoms of *tenderness, rigidity and pulse rate*, are my guiding stars, and determine the advisability of operation safely and soundly as a rule. If the attack is only ten or twelve hours old, but is increasing in severity, beware. Such a case should be watched with an eagle eye, and the other eye should be upon the surgeon. If the case shows no signs of improvement at the end of twenty-four hours, operation should be performed without delay. If the pain has subsided, *but the tenderness is the same, and the pulse is more rapid*, operate at once. If the temperature is normal or only slightly elevated, and the cardinal symptoms of tenderness and rigidity are

present, operate. A coated tongue, nausea and vomiting, a fluctuating temperature, a distending abdomen, are appendiceal frills of varying relative value, and should not be given too much weight in deciding for or against operation. How often a physician says, "My patient does not need an operation, because the temperature is normal, or is only ninety-nine degrees." Yes, but the patient's appendix may even now be gangrenous. What is the pulse rate? Is that normal, too? There may be a time in the treatment of appendicitis for an enema, or a purge, for an ice-bag and for belladonna, bryonia, etc., but there is no time for delay in operating if the symptoms are not promptly ameliorated.

ELECTRICITY IN THE TREATMENT OF ALTERED BLOOD PRESSURE.

BY

F. C. HUTTON, M. D., PHILADELPHIA, PA.

THE study of alteration in the blood pressure has been given considerable attention within recent years, particularly since the introduction of the sphygmomanometer has made it possible to scientifically record even slight variations in the blood stream. If it is important to estimate a patient's temperature with a thermometer, or count his pulse to determine the frequency and character of the heart beat, it is equally important in certain types of cases, to make repeated examinations of the blood pressure in order to ascertain the progress of the disease, and to guard against unfavorable complications.

Normally, the blood pressure in the first three years of life amounts to between 75 and 90 millimeters; in adults, 100 to 130; while in advanced years we expect to find the reading between 130 and 145. Any continuous rise or fall from these standards may be looked upon as abnormal. In all probability increased arterial tension accounts for a great many of the vague symptoms to which man is heir, particularly as he advances in years, and the statement, that "A man is as old as his arteries" has a grain of truth in it after all.

Among the chief causes of altered blood pressure might be considered: first, an increased amount of blood from the heart at each beat; secondly, a rapid emptying of the bloodvessels into the veins, or back into the heart by means of an aortic re-

gurgitation; thirdly, an alteration in the elasticity of the vessels themselves through vasomotor influences; and finally, in the column of blood circulating.

Through the circulation of toxins, the result of deficient metabolism, or the presence of poisons such as lead or alcohol, we notice sooner or later the beginning symptoms of arterio sclerosis, in other words, a variation in the blood pressure with a degenerative process taking place within the muscular layer of the vessel itself. Investigators have endeavored to determine whether this degeneration is produced from a pre-existing high tension interfering with the nutrition of the vessel walls, or is simply a part of deficient metabolism from other causes.

Whatever the cause may be, whether an hypertrophied heart or a chronic nephritis, we know that a high tension within a weakened bloodvessel is a dangerous condition, and it becomes the physician's duty to guard the patient against the threatened hemorrhage by lowering the pressure within the bounds of safety.

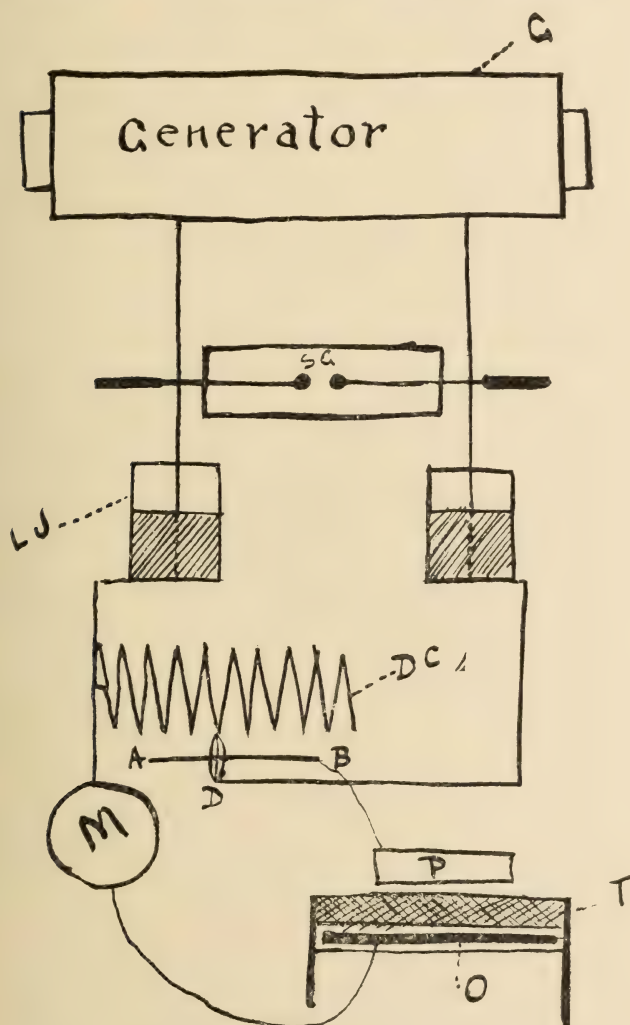
This may be accomplished in various ways: first, by lessening the force of the heart beat by means of drugs, a somewhat dangerous procedure; secondly, a withdrawal of blood from the circulation, or a draining of the fluids through the bowels; and finally, by causing a relaxation of the peripheral resistance.

Instead of resorting to drugs to accomplish this purpose, let us review the various physical measures which suggest themselves in this particular field. It should be understood, however, that in the use of electrical modalities the same precautionary measures are necessary in guarding the safety of the patient as are necessary in the application of any other line of therapy.

The constant use of the sphygmomanometer should be employed to determine the dosage, duration, and frequency of application.

Any measure which tends to eliminate the toxins from the body and likewise promote metabolism within the tissues should be used for this purpose. We have at our disposal the radiant light and heat bath, especially in the cabinet type of apparatus, consisting of a number of incandescent lights of 16 or 32 candle power capacity arranged in front of a series of reflectors, whereby the radiant effect of both heat and light is

directed against the patient's body. In this way a greater degree of heat may be maintained for a longer period of time without exhausting the patient's vitality, than is possible with the Turkish bath, and similar types of hydrotherapy. The



THE D'ARSONVAL EQUIPMENT.

light baths dilate the superficial capillaries and relax the pores of the skin, causing the effete material to be discharged upon the surface of the body by the overactivity of the sweat glands.

I wish next to speak of the D'Arsonval current as the treat-

ment par excellence for this class of patients. Experiments on animals have conclusively demonstrated the pressure lowering properties of this current beyond any question of doubt, and clinical reports by competent observers have fully corroborated its value when applied to the human organism.

The D'Arsonval equipment consists of a suitable generator, (G) producing a high voltage and a corresponding low amperage, such as a static machine of large generating capacity, or an induction coil of at least eight-inch spark gap; after leaving the generator the current is interrupted by means of a spark gap in shunt (SG) which can be regulated by a sliding rod; it is then passed on to the condensers or leyden jars (LJ), where it is connected to the inside armatures. From the outside coating of one jar a wire is passed to one end of a coarse wire (DC), wound for a number of turns over a drum of suitable non-conducting material, the other condenser having its outside coating connected to a sliding rod or contact (D), which can be so regulated that any length of wire or number of turns can be used in the circuit. An exact ratio must exist between the number of turns of wire in the D'Arsonval coil and the size of the condensers, otherwise the best results are not obtainable.

The length of the spark gap regulates the number of frequencies and their character, the shorter the gap the higher the number, whereas the longer the gap the fewer the number of frequencies but the more powerful the discharge.

When the spark leaps across the gap, one jar empties itself and by so doing increases the potential in the other, this in turn swings back and a pendulum-like action is thus established until a zero point is reached, when the performance is repeated. Every time the current is interrupted a high voltage current is set up within the D'Arsonval coil, which in connection with the oscillatory character of the discharge is called after its discoverer the "D'Arsonval Current."

In order to utilize this for our purpose, we take a suitable couch or table (T), place a large sheet of zinc or tin (O) upon it and connect to one pole of the coil, interposing in series a hot wire milliamperemeter (M). Upon the metal sheet we place a thick insulating covering, such as a hair or felt mattress of at least four or five inches in thickness. The patient reclines upon the mattress and is connected either by means of a bifurcated cord and handles, or a metal pad on some other part of the body, to the contact (D) or base of the opposite leyden jar.

This is the preferable mode of administration, and is called the "Autocondensation Method." A current of 300 to 500 milli-amperes measured by the hot wire milli-ampere meter is passed through the body for a period of ten or twelve minutes. The number of applications necessary will depend upon the amount of pressure in the blood stream existing prior to the initial treatment.

The character of this high frequency current is one of high pressure or voltage with a relatively high amperage. The fact that it is perfectly painless during administration in spite of the large amperage is dependent upon the enormous number of frequencies, in other words, the oscillatory character of the discharge. The human organism is incapable of recognizing over 10,000 interruptions per second, whereas in this type of current the number of interruptions reaches the enormous number of 500,000 per second and upwards.

Considerable care should be exercised in this form of treatment not to employ it except within certain limitations in advanced cases of arteriosclerosis, where, by lowering the tension beyond a certain point, the cardiac muscle, which is already hypertrophied, would begin to show signs of atrophy with subsequent dilatation owing to the interference with its nourishment through the coronary arteries. In these cases just sufficient current to reduce the tension below the danger point of impending apoplexy seems to be the ideal procedure.

After each treatment the fall in the reading amounts to about 15 millimeters, and a general sense of well being is expressed by the patient; before each succeeding treatment a slight rise is perceptible in the sphygmometric reading over that at the end of the preceding seance, so that the course of the treatment resembles the descending curve of a typhoid temperature chart. With occasional treatments the blood pressure may be maintained at the proper tension.

In summing up this form of treatment, it would seem that if we can retard the ravages of old age, in some cases prevent hypertrophy of the heart, lessen the likelihood of an attack of apoplexy with its subsequent paralyses, and at the same time do so without jeopardizing the patient's life, we have fully demonstrated the efficiency of physical measures in their therapeutic application to diseased conditions, and have made at least one forward stride towards convincing a somewhat skeptical profession.

SULPHUR.

(Continued.)

BY

EDUARDO FORNIAS, M. D., PHILADELPHIA, PA.

Symptomatic Analysis of Secretions:—In analyzing the synthesis of each of the groups mentioned it shall be my task to point out the origin and meaning of those symptoms which enter into their composition, hoping that in this manner I may be able to outline, in a practical way, those *disorders of secretion* in which SULPHUR should be studied and compared with other remedies. But in this study, it should be remembered that *excretion proper* is considered to-day as the expulsion of the secreted product outside of the gland, or, more strictly speaking, out of the *gland-cell*, while the term *secretion* is used by many to express the protoplasmic activity of the *secreting-cell*.

In general, I may say that during the action of SULPHUR all excretory organs are brought to increased activity, discharging *carbon* and *nitrogen* and *sulphur* and *hydrogen* from the cells, hence the offensiveness of their discharges and the irritation of their outlets. The *excretions* indicative of this remedy assume various characters, but they are chiefly *acid* and *excoriating*:—*Tears, Coryza, Stools, Urine, Sweat, Leucorrhœa, Ulcer Exudation, etc.*

In the *cephalic group* we find that the glandular element is the *sebaceous*. These *glands* are imbedded in the true skin, and belong to the simple and compound *racemose glands*, opening, by a common excretory duct, upon the surface of the epidermis or into the hair follicles. They secrete a peculiar oily substance, called *sebum*, which consists of water, mineral salts (sulphides, etc.), fatty globules and epithelial cells, and whose office is to lubricate the skin and to soften the hairs. It is the substance which protects the feathers of birds from moisture, and which covers the foetus as a varnish (*Vernix caseosa*) to keep the skin soft and supple and guard it from the effects of the long continued action of the *amniotic fluid*.

It is the accumulation of tiny *sebum-drops*, which, by distending more and more, finally breaks the cellular wall. The contents are then liberated, becoming mixed with the contents

of the other cells. But the oily substances flowing to the exterior do not always carry away the empty walls, and accumulating in the distended glands form those *blackheads* (*comedones*), in the centre of which we sometimes find the *vermiform acarus*, called *demodex folliculorum*. These plugs of dried *sebum* in the excretory ducts of the skin are more abundantly seen on the nose. Hardened secretion of this class exists, however, in the rest of the head and trunk, but never on the sides and sub-umbilical region, or on the limbs. According to Arnozan, the *sebaceous secretion* is absent in early childhood, develops towards puberty, attains its maximum in adult life, and diminishes in old age. An unacceptable assertion, for we all know well, that *seborrhæa* consists in an excessive secretion of *sebum*, and is a common affection in new-born infants. Is not *crusta lactea* the *seborrhæa* of the scalp of a nursing infant?

The *dandruff*, the *scurfs*, and the *scales* found in the scalp, are due to *seborrhæa*, and this *excessive secretion* of *sebum* is also the cause of *greasy skin*, and may give rise to scales of fat which may produce *incrustations*. In the first instance, it is called *seborrhæa oleosa* chiefly found about the nose and forehead; in the second, it is named *seborrhæa sicca*, which is the commonest form of the affection, and characterized by the formation of brownish-gray scales. There is, however, another variety called *seborrhæa negra*, in which the crusts are dark-colored. A *sebaceous cyst* contains several pounds of *sebum*, and the *incrustations* of *ichthyosis* are composed of *epithelial scales* and *sebum*. The congenital dryness of the skin called *herodermia* is due to the *perspiration* and *sebaceous secretion* being ill-performed, or altogether absent.

Acne punctata consists in an *accumulation and retention* of *sebum* in the sebaceous glands; *acne indurata* results from *inflammation* about the sebaceous glands, and *acne pustulosa* from *suppuration*.

Inflammatory exudations of the scalp are often mixed with pus, and if we consider that in the *sebaceous secretion*, water, if not entirely absent, is at least present in small amount, we can easily understand why *sebum*, contrary to what it happens with other secretions (*bile, urine, sweat*) so readily suffers degenerative alterations. And yet *the mechanism of this secretion* is somewhat obscure, but by what physiology teaches, it seems to take place by *desquamation* and *dehiscence*. Where does, how-

ever, the oily substance thus formed come from? Is it taken from the blood, or rather from the lymph?—the lymphatic networks seem more developed than the sanguineous around the *sebaceous glands*—or is it formed in place by the metabolic activity of the *bordering cells*, and at the expense of their protoplasmic albuminoids? This seems the most plausible opinion, according to Viault and Jolyet. Under this interpretation the *sebaceous cells* will then be the seat of an *adipogenic synthesis*, where the products have no excrementitious rôle. In fact, it appears as if they simply are there for protection of the teguments and hair, anatomical elements which they soften and render impermeable to water, as it is observed in certain species of aquatic animals.

In other *exudative* and *suppurative inflammations of the scalp*, and surrounding tissues, the *mucous glands* seem to be the parts mostly affected.

In the OCULAR GROUP we find that SULPHUR produces and cures *dryness of the conjunctiva*, *profuse lachrimation*, and many *paresthesia*, as burning, scraping, itching, etc. But *dryness of the eye* and even of eye-balls, like *lachrimation*, are of little diagnostic value unless attending inflammatory conditions or certain morbid states of the organism. *Extreme dryness of the conjunctiva* is only seen in collapse, trigeminal anesthesia and lagophthalmus from contraction of scars, exophthalmic goitre, facial paralysis, tumor of the orbit or leprosy.

Profuse lachrimation, on the other hand, occurs in diseases of various types, both local and general. It is very marked in *pustular inflammation of the cornea or conjunctiva*, in fact, it is a constant symptom of *all conjunctivitis*, whether catarrhal, gonorrhœal, phlyctenular, purulent, granular, vernal, or that produced by the introduction of foreign bodies. The *altered secretions* from such cases are often *acid, corrosive, hot*, and sometimes tenaceous, causing *agglutination of the lids*, chiefly observed in the morning. *Excessive lachrimation* is always present in *inflammation of the tear-sac*, or *obstruction of the nasal duct* (epiphora); but it is also frequently observed in *asthenopia*, *trachoma* and *facial paralysis*, and is a common symptom of *hay fever*, *measles*, *spasmodic asthma*, *influenza*, *variola*, etc.

In the pathogenesis of SULPHUR we have also ample indications for *inflammatory conditions of the lids*, whether limited to the hair follicles (*blepharitis ciliaris*), to the margin of the

eyelids (*blepharitis marginalis*) or in that ulcerous form called *blepharitis ulcerosa*.

Blepharitis ciliaris is of frequent occurrence and its evolution is slow and progressive. The free margin of the lids are red, discharging, and covered with yellow-crusts. If the malady continues, the eye-lashes fall and the palpebral conjunctiva, red and turgid, raises and inverts the lids. *Adhesions* are formed between the two lids, towards the external angle, and consequently the palpebral opening becomes contracted (*blepharo-phimosis*). Sometimes the eye-lashes are ingrowing (*trichiasis*), giving rise to a true *Keratitis*. In a more advanced state the free border of the lids become inverted or turn in (*entropion*), and when they turned in an inverse direction (*ectropion*) the *tears* cannot flow and accumulate on the inferior lid. *Stye* is an inflammation of a *sebaceous gland*; and like *tarsal cyst*, *tinea tarsi*, *pannus* and *hypopium*, is an exudative process, and the same may be said of *opacities of the lens*.

Of course, the amount of *secretion* or *exudation* in *ocular inflammations*, especially conjunctival and blepharal, is in proportion to the severity of the case and the origin of the trouble. Both, *conjunctivitis* and *blepharitis* are common, and often attended by a more or less *abundant secretion*. *Catarrhal conjunctivitis*, with injected cul-de-sac, is soon followed by a *mucoous* or *muco-purulent discharge*. *Purulent conjunctivitis*, either in the adult or new-born, is almost always caused by the *gonococcus*. In such cases, the bulbar and palpebral conjunctiva are intensely inflamed, the mucosa is infiltrated and raised, forming an edematous ring (*chemosis*) around the cornea and increasing the thickness of the lids, which are tumefied and painful. By contraction of the orbicularis, the eye is closed, and should always be opened with utmost care, for the *yellow discharge* violently poured out from the projecting lid is of an *extreme virulence*. We all know how rapidly the *corneal lesions* supervene and end in *perforation*. Some claim that the *lacrimal gland* being a part of the palpebral space, its *alkaline secretion* has a modifying influence upon all ocular discharges, and we constantly observe that the *tears* lubricate the conjunctival and palpebral surfaces, and serve to aid the removal of desquamative elements and in keeping the field of vision clear, but in a purulent inflammation, like the *ophthalmia neonatorum*, we better do not trust much these natural defenses.

Pseudo-membranous conjunctivitis is a type of inflamma-

tion characterized by *fibrinous deposits* on the inflamed surfaces, but these *false membranes* may be found in a great number of conjunctivitis, which sometimes are symptomatic of an *ocular diphtheria*. The histologic examination will reveal the presence of Loffer's bacillus.

A form of *chronic conjunctivitis* presenting from time to time, *acute attacks of muco-purulent discharge*, with tumefaction of the lids, is the so-called *granular* or *trachomatous conjunctivitis*, in which the granulations have the aspect of a fleshy budding.

Finally, under the influence of an infection proceeding from the conjunctiva or the nasal fossæ, the *lacrimal secretion* becomes often purulent (*blenorrhœa of the sac*). In severe cases extremely painful, with formation of pus and fluctuation, the trouble may lead to a *fistula*, if the pus is not evacuated.

These are more or less the forms of *ocular inflammation* in which SULPHUR has often rendered good service, but as we are dealing especially with *secretion*, it may, perhaps, be profitable to inquire, what are the sources of so many alterations and discharges. Normally, the *tears* are secreted by the *lacrimal glands*, and are distributed over the cornea by the lids during the act of winking, principally to keep the surfaces free from dust. When in excess the *tears* pass into the *lacrimal ducts*, which conduct them into the *nasal duct*, and so into the nose. The sliding of the lids, however, is not only facilitated by the *tears*, but by the *mucus secreted by the glands of the conjunctival culs-de-sac*. In this rôle, the sliding of the conjunctiva may be compared with that of a serous membrane. I have already referred to another *office of winking*, namely: the removal of desquamative elements from the anterior face of the cornea, which otherwise would accumulate and obstruct vision. Then, again, the *tears* are retained between the limits formed by the free borders of both lids—except in cases of excessive secretion—by the *sebaceous matter* secreted by the *Meibomian glands*, whose function here is to lubricate these parts. So we see, that *lacrimal elimination* is imperative, for if the tears could evaporate on the eye, they would deposit there the saline matter (Na Cl) and the albuminoids they contain, and consequently they must keep on moving on their channels to protect the field of vision from obstruction. Any interruption of this mechanical process, though inferior to infection, must necessarily bring about a great deal of trouble and distress.

But frequently *ocular troubles* are of *reflex origin*, and the *secretion of tears*, itself, is made by *reflex action* under the influence of the excitation of the *sensitive nerves of the cornea, conjunctiva* and *pituitary mucosa*, and also consecutively to the excitement of a great number of other sensitive nerves or under the influence of psychical impressions (*pain, emotions, etc.*).

Many *sympathetic affections of the eyes*, in which their secretion may be altered, can hardly be understood without a previous knowledge of their minute structure, and chiefly of their nervous connections. The *lacrimal nerve*, which is a branch of the *ophthalmic*, deserves here especial consideration, for it contains the greater part of the secretory filaments of the gland, a few of those fibres belonging to the sympathetic. Landois gives as *secretory nerves of the tears*, the lacrimal, the subcutaneous malar, and the cervical sympathetic.

As to the structure, the *lacrimal glands* are compound tubular glands, provided by several excretory ducts, which are clothed with a two-layered cylindrical epithelium and pass into long narrow, intercalated tubules lined with low *epithelial cells*. These pass into the gland tubules, which are lined with *serous gland-cells*.

The walls of the *lacrimal canaliculi* is rich in cellular elements and the *lacrimal sac* and *naso-lacrimal duct* have a *tunica propia*, which is chiefly *adenoid in character*, and separated from the underlying periosteum by a dense plexus of veins. The *eyelids* are folds of the integument, which enclose not only muscles and loose and compact connective tissue, but *glands*. The *hair-follicles of the cilia* are provided with small *sebaceous glands*, in addition to which they take up the excretory ducts of the *ciliary glands*, which in their minute structure resemble coil glands, from which they differ only in having their lower and less convoluted. In the substance of a plate of dense fibrous tissue, called the *tarsus*, are embedded the *tarsal glands* (meibomian), which consist of a wide excretory duct opening on the palpebral border and of little *sebaceous follicles* that empty into it on all sides. At the upper end of the tarsus, partly enclosed by its substance, lie branched *tubular glands* which in their minute structure coincide with the *tear-glands*, and therefore are called *accessory tear-glands*, and which principally occur in the inner (nasal) half of the eyelid.

Behind the *tarsus* lies the *conjunctiva proper*, which consists of a *stratified columnar epithelium* and a *tunica propia*, with a

narrow hyaline cuticular border. In the upper portion of the *palpebral conjunctiva* the epithelium forms irregular pocket-like depressions (*conjunctivæ recesses*), which when highly developed may resemble glands, but on the lower portion the conjunctiva is smooth. In the *fornix conjunctiva* we find about twenty small lymph nodules and a few *mucous glands*. The *caruncula lacrimalis*, which we all know resembles the skin in structure, also contains *sebaceous* and *accessory tear-glands*.

Whether *nerve-fibres* penetrate between the gland-cells has not yet been distinguished with certainty; probably the *nerves of the tarsal-glands* behave like those of the salivary glands. But it is known that one portion of the *tarsal plexus* surrounds the *tarsal glands*. On the other hand, the *blood vessels*, which are branches derived from the *arcus tarseus* and *arcus tarseus externus*, ramify in the skin, surround the *tarsal glands*, and penetrate the *tarsus* to supply a capillary network lying beneath the conjunctival epithelium. They also supply the *fornix conjunctiva*, the *scleral conjunctiva*, and anastomose with the *anterior ciliary arteries*.

This is, more or less, a synopsis of the glandular and mucous structures concerned in the production and elimination of the *ocular secretions*.

The symptoms of the AURAL GROUP are chiefly the result of *middle-ear disease*, especially with perforation. *Otorrhæa* is occasionally due to *eczema* and *furuncle in the meatus*, and also to *polypus*. Discharge from the meatus is observed in *caries of the temporal bone*, *fracture of the base of the skull* (cerebro-spinal fluid), and *thrombosis of the lateral sinus*; and is a frequent *sequela of measles, mumps, scarlatina, teething, diphtheria* and *tonsillitis*. Liquid *cerumen* is sometimes mistaken for pus. Cerumen (*ear-wax*) is a mixture of the *secretions* of the *sebaceous*, and *sweat glands* of the cartilagenous part of the outer organs of hearing. It consists of pigment-granules, oil globules, and cells containing fat, which probably comes from the *sebaceous glands* of the hair-follicles (Stöhr.). *The secretion of the Meibomian glands is sebum*. Accumulation of hardened *ear-wax* interferes with the acuteness of hearing. The *perilymph* and *endolymph* are alkaline fluids, which, besides salts, contain, like transudates, *traces of proteid*, and, in certain animals, also *mucin*.

As stated above, the *variety of discharges* recorded under SULPHUR belong chiefly to the *strumous diathesis*, and to

chronic suppurative otitis media, in which the *perforation of the tympanum* is the rule. They develop most frequently as *sequela of measles, and scarlatina* and usually they are *abundant and purulent*. These *aural discharges* consist of *yellow or greenish pus*, sometimes scanty, thick, and caseous; at other times, *profuse, serous, ichorous* or *streaked with blood*, or may contain purulent osseous grains, of *horrible odor*, indicating an *osteoperiostitis*, which is often of *tuberculous origin*.

The irritation caused by the incessant passage of corrosive pus determines the production of those *erosions and eruptions*, around and about the external auditory meatus, in which SULPHUR has often proved beneficial.

It is unnecessary to speak here of the extensions and serious complications brought about by pus-retention, bad hygiene, and improper treatment, but it will not be amiss to acquaint the student with the topography of the *aural phenomena* we are discussing.

The *external auditory canal* is nearly all clothed with an extension of the skin, characterized by its thickness and by a great abundance of peculiar coil-glands (*ceruminous glands*), which in some respects correspond with the ordinary *sweat-glands* of the *skin*. Like these they possess an excretory duct lined by several layers of *epithelial cells*, which rest on smooth muscle-fibers and a conspicuous basement membrane. They are distinguished from the *sweat-glands* by the very wide lumen of the coiled tubule, that particularly in adults is greatly dilated and by numerous pigment granules and fat-droplets within the gland cells, which frequently exhibit a distinct cuticular border.

Seen from within we find that the *mucous membrane of the tympanic cavity* is intimately united with the underlying periosteum, the source of the horrible odor of *chronic discharges*. It consists of thin connective tissue and single stratum of *cubical epithelial cells*, that sometimes are ciliated. *Small glands* occur sparingly in the anterior half of the cavity. On the other hand, the *mucosa of the Eustachian tube* consists of a fibrillar connective tissue—containing numerous *leucocytes* near the pharyngeal orifice—and of a stratified ciliated columnar epithelium, the ciliary wave being directed towards the *pharynx*. Here the *mucous glands* occur in especial abundance in the pharyngeal half of the tube.

I pass now to analyze the phenomena of the *fourth group* of my study. The NASO-PHARYNGEAL SPACE is affected and

cured by SULPHUR. Its pathogenesis includes *catarrhal manifestations* of various degrees, characterized by *increased, diminished and altered secretions*. Sometimes *snuffling or stuffiness of the nose* ends in impediment of the nasal breathing, or the *profuse fetid discharge of muco-pus* indicates the chronic course of the disease, until finally the *blowing out of dried scabs* announces the establishment of atrophy (*Ozæna*). In bad cases the *chronic inflammatory exudation*, especially in *strumous and syphilitic* subjects, may lead to sloughing of the bone and soft tissues, with perforation of the septum and destruction of the ethmoid bones. In rare cases of *syphilitic origin* the bridge of the nose sinks in. The accessory symptoms are often of immense value in the selection of the remedy. At other times the *lining membrane of the nose* is the seat of cold impressions (*acute coryza*), and the cell proliferation and *flow of watery or of altered secretion* announce the inflammatory localization, which by extension may invade the *frontal sinuses*, the *pharynx*, and even the *bronchial tubes*. *Coryza*, which is also a first sign of *measles*, and *hay fever*, is marked by catarrhal inflammation, *nasal discharge*, and abundant lacrimation, with well pronounced asthmatic attacks and great depression. *Loss of smell* may be present in *cold in the head*, and is not an uncommon symptom in *atrophic rhinitis*, where there is not only wasting of the mucous membranes but of the glands. *Anosmia* is frequent in *chronic hypertrophic rhinitis*, but here the *nasal secretion* is not offensive, and the *respiratory difficulty*, especially in children, is particularly serious as it hinders development. There is another variety of *rhinitis* called *caseous*, in which *loss of smell* may be present, and in which the discharge is gelatinous and fetid. I have seen, not only depraved sense of smell, but *complete anosmia* follow a severe attack of *grip*. *Loss of smell*, or a diminution of this sense may be an early sign of *general paralysis*, and *anosmia* is frequently observed in *hysteria* and in cases of *peripheric lesion of the olfactory nerve*.

The student should bear in mind that in the superior wall of the *nasal pharynx* is found attached the *pharyngeal tonsil*, and that hypertrophy of this gland forms the *adenoid vegetations*. They may be of such a size as to obstruct almost completely the posterior orifice of the *nasal fossa*, rendering breathing by the nose impossible, and making respiration by the mouth indispensable. In *catarrh of the larynx and bronchi*, this buccal

breathing leads frequently to snoring and agitation during sleep. Children obliged by *adenoids* to breath continually by the mouth, have a dull, stupid expression, intellectual debility (*aproxia nasalis*), and sometimes a peculiar nasal discharge. It is an affection which renders them liable to *ear-trouble*, and which interferes greatly with the development of the thorax,

I have stated that *catarrhal rhinitis* may pass to the *chronic state*, due to *deep lesions of the pituitary mucosa*, with consecutive wasting of the glandular elements. The *pathological process* may assume the *hypertrophic* or *atrophic* form. When *hypertrophic*, the respiration is disturbed, the nose is stuffed up, the voice has a nasal tone, and the *secretion* is more or less abundant, but never of a fetid odor. On the other hand, *ozena* characterizes the *atrophic form of rhinitis*, and as the *wasting* of the mucous membranes and glands is marked, the *secretion is nil*, or nearly so, appearing, in general, under the form of *brownish, horribly offensive scabs*, which adhere more or less firmly to the subjacent mucosa. This is not ulcerated, however, and the nasal skeleton remains intact; two characteristics which allow us to differentiate between *ozena* and *ulcerative syphilitic gumma*, the latter rapidly becoming complicated with *bone-lesions* (periosteum, perichondrium). These *tertiary, syphilitic lesions* emit a *foul smell*, quite comparable with that of *ozæna*, and frequently leave behind a very characteristic deformity, which Fournier, has called *nez "en selle,"* or, "*en lorgnette*."

As the *glands waste and disappear in fetid, atrophic, chronic rhinitis*, French authorities claim, that the destruction of the *glands of Bowmann*, by modifying the composition of the mucous secretion renders possible the development of the bacteria of putrefaction, the cause of the unbearable odor. *Polypus*, with a *serous discharge* and distressing stuffiness, is sometimes an attendant of *chronic rhinitis*; while, *catarrhal sinusitis* is frequently observed in the course of *acute rhinitis*, and is made evident by the existence of painful spots on pressure on the level of the cheek or superior internal angle of the orbit, indicating that the mucous membrane of the *maxillary or frontal sinus* partake of the inflammation of the nasal mucosa. This trouble usually disappears with the coryza, but it may become chronic, and be the origin of a *chronic purulent sinusitis*. The purulent sinusitis (*empyæmia of the sinus*), may still arise from a *chronic rhinitis*, from *dental caries (maxillary sinusitis)*, or re-

sult from the presence of *nasal polipi* and *foreign bodies* in the fossæ. Very often the inflammation coexists in the frontal sinus, maxillary sinus and the ethmoid-cells, and the disposition of the orifices of the three sinuses in the groove of the infundibulum explains the facility with which the pus descends from the *frontal sinuses* to the *Antrum of Highmore*. Usually the inflammation exist only in one fossa and is attended by *frontal or maxillary neuralgia, headache and discharge of fetid pus from one nostril*. Here, contrary to what it happens in *ozena*, the patient perceives the *fetid odor* he emits.

Anatomy and pathology agree in the separation of the *vestibule* (anterior nares) from the *nasal fossæ*, properly so-called. The first is in fact lined by a membrane whose structure is, in every way, comparable with that of the skin, with its glands and hairs or *vitrissæ*, which in the feline tribe are called whiskers, while the *walls of the nasal fossæ* are covered by a *true membrane*. The same lesions of the *anterior nares* are observed on the *skin* (*eczema, impetigo, furuncles*, etc.), while the cavities beyond *the nose and naso-pharynx* have their own pathology.

As stated elsewhere, in the pharyngeal half of the Eustachian tube there are numerous *mucous glands*, which decrease in number towards the tympanic cavity. In a fresh state the *nasal fossæ* are lined with a mucous membrane (*pituitary*), which presents a different aspect above than below. In the superior part this *mucosa* is only slightly vascular, yellow, thin, poor in glands, and receives the branches of the *olfactory nerve*. This is the so-called *Schneiderian membrane*. From the inferior half of the middle passage downwards, this *mucosa* is red, thick, very vascular and encloses *numerous glands in clusters*. The blood vessels are particularly developed at the level of the inferior passage, where a genuine cavernous tissue exists. This inferior portion of the *pituitary membrane* is a part of the respiratory apparatus. Its office is to warm up, to lubricate, and to make aseptic the inspired air, for the recent researches of Wurtz and Lermoyes and Piaget have plainly shown the bactericidal power of the *nasal mucus*. What share the *nasal tears* may have in this aseptic action I am not prepared to say. Charrin claims that the mucous principle (*mucin*) lubricates the ocular walls, and arrests the growth of *microbes*, and why should not similar results be produced in the anterior nares? At any rate, *bacteria retained by mucous deposits* become still

more enfeebled and an easy prey to leucocytes, no matter where, for no *secretion* known, can compare with *mucus* in agglutinative and retaining power. Surely the *nasal mucus*, like the *tears*, the *saliva*, and *other excretions* play an important part in the natural defenses of the organism. Do not we see, with what profusion, with what variety, are these defenses found clustered together at the level of cavities serving as gates to the invasion of hostile elements?

The THROAT AND MOUTH are important outlets for excretory products, and by their extensive membranous connections and numerous nooks, as well as by their accessibility, they are frequently exposed to pathological processes of serious import. Their relation to the *pharynx* and *nose*, on the one hand, and to the *larynx* and *œsophagus*, on the other, makes of these regions an interesting field for study. Take into consideration the whole cavity, first, the *tongue*, the *gums*, the *faucial recesses and expansions*, the *laryngeal gap and niches*, and then study the *lining membranes* and the *lymphogenous and secretory tissues* and *their products*.

We have to admit that no cavity of the human organism is so accessible and presents so many objective phenomena of diagnostic importance, as the *mouth*, or better still, the *tongue*. There we find *saliva*, mixed with *oral* and even *bronchial mucus*. Where do these *secretions* come from? The *saliva* is secreted by three large pairs of glands (*submaxillary*, *sublingual* and *parotid*) and the mixture of these individual secretions, constitute the *mixed saliva*, an important factor in the *analysis of digestion*. But, as a *digestive ferment* its discussion here is not necessary; its *mechanical rôle*, however, should be studied in connection with the other secretions found in this cavity.

In general, I may say that the *glands of the oral cavity* are of two kinds: (1) cells that yield a *secretion* rich in albumin, *albuminous or serous cells*; (2) cells having, in addition to some albumin, a *secretion* consisting chiefly of mucin, *mucous or mucin-cells*. The *glands* which occur in the mucous membrane and in the superficial muscular strata of the *tongue*, are also *serous and mucous*. It is the structure of the secreting cells that differentiates a mucous from a serous gland. At the red margin of the lips, where the mucous membrane meets the skin, we find also a number of *sebaceous glands*. And finally comes the *bronchial sputa* to combine with the other secretions

and make a heterogeneous mass. So we see, that there are secreting cells and channels about the whole *oral cavity*, and now we shall see that the *combined secretions* of the different cells is found in this cavity serving many important purposes essential to life.

I have elsewhere stated, that like in the *lacrimal and sudoral glands*, there are *excito-secretory nerves* for the *salivary glands*, and some physiologists even admit the existence of *especial nerves of arrest*, called by them, *freno-secretory* or *inhibitory nerves*.

The *mechanical rôle of saliva*, consists not only in assisting the solution of soluble substances in the food, and in lubricating the *bolus* to aid deglutition, but in indirectly determining the opening and closure of the *Eustachian tube* and the entrance of air into the middle ear to facilitate *audition*. Moreover, *saliva* renders easy the movements of the tongue during *phonation*, keeps the mouth clean of foreign substances, which might decompose and injure the teeth, dilutes caustic liquids accidentally introduced, and by flowing over the oral surfaces and evaporating, it co-operates in the lowering of the temperature, probably more so than the *bronchial secretion*. Of its power to convert starch into sugar, I shall speak in the corresponding division of this work.

In this group we find the same *secretory alterations* as elsewhere. *Dryness of the mucous surfaces* seems to be the leading phenomena, but *salivation* is by no means uncommon. In SULPHUR we have also, both *quantitative and qualitative changes* at the same time, just as we observe in the saliva of certain cases of fever. *Perverted taste, a coated tongue and bad breath* are common attendants.

The pathological processes in the *salivary glands* are numerous and of various origin. *Salivation* is often the result of a lesion of the mucosa of the mouth and pharynx, due to irritation of the sensory nerves, a *reflex secretion*, such as is observed in *all diseases of the mouth, dentition, odontalgia, trifacial neuralgia, scurvy, syphilis, adenoids, etc.*, and from the *absorption of certain drugs* (mercury, lead, aconite, antimony, physostigma, digitalin, pilocarpin, copper, etc.). Certain *nervous states and morbid conditions* can also provoke, by a not well-known relation, a *sympathetic salivation*, as in nausea, gastric disorder, various gastralgias, pregnancy, hysteria, epi-

lepsy and hydrophobia. But regular *dribbling of saliva* is very marked in dementia, idiocy, and facial paralysis.

The *saliva* is generally *diminished or suppressed*, in *acute febrile diseases*, principally typhoid, in Bright's disease, and in simple or diabetic polyuria. *Dryness of the mouth* is commonly caused by *open mouth*, but *Xerotic conditions*, especially of the tongue, are frequently seen in tuberculosis, peritonitis, acute enteritis, erythematous gastritis, intestinal obstruction, and wasting diseases. Here the *tongue is dry and glazed*, but it is *dry and furred* in ague, continued fever, dyspepsia, erysipelas, jaundice, nasal obstruction, hyperpyrexia, exanthemata pyæmia, peritonitis, pneumonia, typhus, typhoid fever, etc. Certain drugs, such as the *opiates* and *solanaceæ*, and principally *atropin*, *diminish the salivary secretion* by paralyzing the secretory nerves.

A common physico-chemical alteration of the saliva is *acidity*, observed in mumps, gastritis, cancer, diabetes, and fevers, especially typhoid fever. The *abnormal principles of the saliva* have been studied with care. *Lactic acid* has been found in diabetic patients, and it is claimed that it attacks the calcareous substance of teeth producing *diabetic caries*; *coloring matter* is found in *diseases of the liver*; *urea* and *albumin* in enormous proportions in *Bright's disease*, and *leucin* in *hysterical subjects*. It is also claimed that *urea* is a normal constituent of saliva. The *saliva* also contains salts, which being precipitated in the *salivary ducts*, especially in Steno's and Wharton's ducts, give rise to *salivary calculi*. These salts are *carbonate and phosphate of lime*. The origin and composition of the *dental tartar* is the same, but it is said to contain also *urates*. The *leptothrix buccalis* are abundant. It is through these excretory channels that certain drugs are eliminated, principally *mercury*, *potassium*, the *iodides* and *bromides*, etc.

Among the *mineral bodies of this secretion* the *sulpho-cyanides* are the most important. According to Schneider and Krüger, they are present in less amount in non-smokers. Normally, 130 milligrammes are eliminated in the 24 hours. Some even claim that in *small-pox* this salt *leaves the saliva entirely* and is found then in the pox, during the stage of suppuration, but it is again discovered in the *salivary secretion* after the stage of desiccation.

Innumerable *microbes* are also detected. Some of them are *pathogenic* and germinate in the *normal fluids of the mouth*,

which are for them an excellent medium of culture. In *dental caries*, *stomatitis*, *tonsilitis*, etc., we always found an increased amount of the specific microbe of these affections.

Blood in the saliva, as it is recorded under SULPHUR, is usually due to *spongy and bleeding gums*, a condition frequently observed in diabetes, dyspepsia, gastric irritation, purpura, and very accentuated in *scurvy and mercurialism*, where this drug is often indicated. *Perversion of taste*, especially *foul taste*, and *foul breath*, should be considered here in connection with the *qualitative alterations of the fluids of the mouth and the bronchial exhalations*.

Foul taste and foul breath, which I consider characteristics of SULPHUR, are present in *mercurialism*, *ptyalism*, *alcoholism*, *ozæna*, *follicular tonsilitis*, *cancrum oris*, *bronchiectasis*, *bronchorrhæa*, *phthisis*, *fecal accumulation*, *gangrene of the lung*, *dilated stomach*, *jaundice and other liver affections*, in which we may find this remedy particularly indicated.

In the *throat* we may find similar *conditions of dryness*, as in the *mouth*, and this dryness under SULPHUR, is particularly noticed in the *fauces and palate*, extends to the *Eustachian tubes* and *æsophagus*, causing various pains and paresthesias, especially of a *burning character*, and interfere more or less with deglutition.

The student, however, should remember that in the *pharynx* we meet with numerous *tubular simple glands*, as well as *mucous glands* similar in structure to the *lingual mucous glands*, and with their excretory ducts often surrounded by heaps of leucocytes. *Atrophic mucous glands* also occur in the *pharynx*. In the *post-nasal space*, as stated elsewhere, the epithelium changes into stratified, ciliated columnar variety, the lower end of which is subject to considerable variation. The *glands* occurring in this upper pharyngeal region lie above the border-stratum, and in structure coincide with the *glands of the respiratory nasal mucosa*. Here we find the *adenoid tissue* richly developed, forming between the pillars of the fauces raised projections, one on each side, known as the *palatine tonsils*. These *lymphoid masses* are the seat of various inflammatory processes (*follicular*, *herpetic*, *membranous*, *phlegmonous* or *suppurative tonsilitis*,) and in respect to their structure, in man and many animals, they correspond to an aggregation of lymphadenoid masses at the base of the tongue (*lymph nodules*). That the *palatine tonsils* may be regarded by some as the most

fertile source of the salivary corpuscles, is acceptable if we consider the numerous leucocytes that wander through the epithelium of these *submerged tonsils*.

The *adenoid tissue* is also abundantly developed in the *respiratory portion of the pharynx*, especially on the posterior wall between the orifices of the Eustachian tubes, where it forms a conspicuous mass, called the *pharyngeal tonsil*, which agrees in structure with the *palatine tonsils*, excepting that the lymphoid tissue is less sharply circumscribed. Many leucocytes migrate also through their epithelium. But it should be remembered that the development of the *adenoid tissue of the oral cavity and of the pharynx* is subject to considerable variation.

The *pharyngeal tonsil of children* is a common seat of hypertrophy. Here are developed those lymphoid enlargements known under the name of *adenoids*, where the little patients breathe through the mouth, snores at night, and there is often a nasal discharge, and usually some deafness. The *etiology of adenoids* is not fully known, but the fact that it is a common condition in *strumous and delicate children*, and may coexist with *chronic enlargement of the tonsils, and even of other glandular structures*, should always suggest the study of SULPHUR, particularly when the respiratory obstruction is marked and may interfere with the development of the thorax, and of the whole organism. Moreover, it is claimed, in our days, that the *lymphoid structures* themselves may harbor the *tubercle bacillus* or become the seat of a tubercular deposit.

A COMMUNICATION.

A CRITIC ANSWERED.

EDITOR HAHNEMANNIAN MONTHLY:

Mr. E. P. Anschutz has seen fit to still further attack the standard pharmacopœia of the homœopathic school in the December HAHNEMANNIAN. He has abandoned as untenable his principal argument in his former letter, viz., that methods in use as set forth in a book called the "American Homœopathic Pharmacopœia" are Hahnemann's methods. It can, however, hardly be called a graceful withdrawal to say: "All this and

other things of similar import are entirely irrelevant to the topic under discussion."

His communication, however, still contains mis-statements which would seem to be made for the sole purpose of trying to injure the H. P. U. S. He says: "The whole effort of Dr. Carmichael and other gentlemen who defend the new Pharmacopœia is concentrated in an effort to prove that 1 part drug to 10 of alcohol tinctures are as strong as those made with 'equal parts drug and alcohol.'" He knows that this last phrase should be equal parts of expressed juice and alcohol which is a very different matter. Whether the first part of his statement is true we can safely leave to those who have read our previous articles. Then he makes a strange remark for a pharmacist who is discussing a pharmacopœia. He says: "Personally, I cannot see that it makes much difference in homœopathic practice whether a drug is made from equal parts or one to ten, as that practice is not ruled 'by drug strength,' but by the homœopathicity of a drug to a given disease." In other words, any loose way of preparing the remedy will answer provided you get therapeutic effects. He forgets that a pharmacopœia has nothing to do with therapeutics. If he is correct then, any of the nine or more different preparations of aconite that were used in the provings would answer and there would be little need of a pharmacopœia or of the refinements of homœopathic pharmacy.

However, he admits that "a new homœopathic pharmacopœia that is practical might be a very good thing, and would be adopted without question by all homœopathic pharmacists but this book is not a practical one." Then he gives his reason why the new book is not a practical one. It is that "Country doctors who prepared some of their own tinctures have told the writer that under the old rules they could make 'beautiful tinctures' but not under the new rules. Why, I do not know." Shades of Hahnemann! is the pharmaceutical exactness and perfection of his descendants to be measured by the country doctors who can make some "beautiful tinctures"? That the Homœopathic Pharmacopœia of the United States is an eminently practical work is attested by the fact that at the present time it is being used by more homœopathic pharmacists in the U. S. than any other method or work on pharmacy. It is more accurate, more scientific, more in harmony with the scientific character of the homœopathic school and the law of similia, as

a scientific law of cure, than any work that has ever been produced in our school. "*Country doctors who prepared some of their own tinctures*" can now make them of uniform strength *whether the plants that they collect contain an exuberance of juice from a very wet season or an unusually dry spell has caused a diminution of the plant moisture. This they could never do before*—except in England where the British Homœopathic Pharmacopœia has, since 1876, prescribed this method of tincture-making, and from which it was adopted by the makers of the Homœopathic Pharmacopœia of the United States.

Having dismissed his own previous statements against the standard as irrelevant, Mr. Anshutz endeavors to array the high potency men against the new pharmacopœia. This must be the object of his statement that there is "another point concerning this book that may in the future loom very large in homœopathy and sooner or later must be met." He refers to the statements on pp. 41 and 43 of the H. P. U. S. in reference to the limitation of the divisibility of matter to the 24th decimal dilution or to less than this in cases of many triturations. As a fair-minded scientific man, he knows that the Pharmacopœia is simply noting a pharmaceutical fact and that it does not presume to enter the field of therapeutics. It simply makes a note of what takes place in the preparation of our remedies—that the material substance as such disappears or is incapable of recognition or determination by any method known to pharmacists at or before the 24th decimal dilution is reached. We thought that all homœopathists agree with Hahnemann that it is the spirit or essence of the drug and not the matter of it that exists in the higher potencies. Hahnemann expressly repudiates the idea that the material drug must be present in the remedy in order that it may be curative.

That the H. P. U. S. has no intention of limiting our preparations to the 24th decimal or the point where the material disappears is plainly stated in the following which Mr. Anshutz found it *convenient not to quote*, viz.: "*While we are bound to ignore nothing which modern science has revealed, and while we are desirous of keeping abreast of it, it is not incumbent upon us as pharmacists to limit by any arbitrary rule the degree of dilution or trituration which might be desired.*"

Therefore, if the H. P. U. S. is adopted as a standard this will not make the 24th decimal the official legal limit as Mr.

Anshutz says, nor will that official recognition make "a vial of any drug labeled over the 12th, say *calcareo carb.* 30, be falsely labeled according to the Pure Food Law and those doing it liable to fine or imprisonment."

If the Pure Food Law were capable of any such construction then fine and imprisonment would have been already visited upon all pharmacists who place a label *calcareo carb.* 30 upon a vial containing that remedy because they could not by any known chemical or pharmaceutical test show that it contains a trace of calcium carbonate. Therapeutic tests would, of course, not be considered and they cannot have a place in a pharmacopœia. Mr. Anshutz's remarks about reported cures and the activity of a drug in the 30th potency are irrelevant to the subject under discussion. We all believe in them but cures and therapeutic activities have no place in a pharmacopœia which is a work devoted entirely to facts pertaining to the official preparation of drugs for medicinal use.

Near the end of his communication, Mr. Anshutz makes a statement which clearly shows the animus of his writings, viz., to discredit the work of the American Institute of Homœopathy and the standard pharmacopœia. He says: "The maker (or makers) of this book chose to base it on what *he* termed 'modern science' rather than on the science of homœopathy, and what is the result?"

What shall be said of this writer of a criticism on the standard pharmacopœia who with the book before him containing in its Historical Introduction the account of its careful and thorough preparation, deliberately assigns that preparation to one person?

If the statements in the work have not been read by Mr. Anshutz (as they should have been), then we suggest that he read them and in addition would give him the following official information about the work.

The Historical Introduction to the first edition was written by Dr. J. P. Dake; The Bibliography of the Pharmacopœia was written by Dr. Henry M. Smith. Part I on General Pharmacy was written by Drs. Conrad Wesselhoeft and J. W. Clapp. Dr. Wesselhoeft wrote most of the text and Dr. Clapp wrote that which related to the preparation of tinctures and attenuations. Part II—Special Pharmaceutics. The botanical descriptions including the Natural Order, Synonyms, Habitat and History of Plants were prepared by Dr. Henry M. Smith.

The chemical descriptions with some few exceptions were written by Dr. Friedberg, Professor of Chemistry in the New York Homœopathic Medical College. These were furnished under the direction of Dr. Malcolm Leal, one of the Editorial Committee. A limited number of these descriptions were made by Dr. I. W. Clapp, who also arranged the titles, synonyms, symbols and doses. All of this was reviewed by a former instructor in chemistry in the Massachusetts Institute of Technology.

The pronunciations were perfected by an expert proof reader who was also an accomplished Greek and Latin scholar. He was paid ten cents a page for making a final reading of the proof of the entire work besides the work on pronunciations.

Two women also aided in the work—one who copied the thousands of pages of manuscript on a type writer for the use of the committee, besides thousands of pages of correspondence from dictation. The other was Dr. Anna T. Lovering, former editor of the *New England Medical Gazette*, and author of several works. She aided in proof reading and in gathering data from works on botany and chemistry—in perfecting the index and arranging the tables in Part III.

The work thus shows the highest care in preparation by those whose ability in their special departments was unquestioned. Their sole aim was to advance the best interests of homœopathy by placing its pharmacy upon an uniform, scientific basis. The profession have already approved of their labors and the future will show the vital worth of a standard pharmacopœia to the perpetuity and growth of the homœopathic school.

T. H. CARMICHAEL, M. D.

CARROT SOUP FOR SICK INFANTS.—Moro found that newly born guinea-pigs fed on cow's milk succumbed in a few days to acute digestive disturbances as a rule. The syndrome suggested the alimentary intoxication of infants. The symptoms can be arrested if the young are fed with sliced carrots or allowed to suckle the mother. He has applied this experience in treatment of infants suffering from digestive disturbances, and reports excellent results in 48 cases in which the infants were fed on carrot soup. He boils the carrots and passes them through the finest wire sieve, adding about 200 c.c. to one liter of meat broth made from 500 gm. beef and bones. The carrot soup is made fresh each day and represents from 35 to 260 calories to the liter. This supplies nourishment, while it causes complete transformation of the intestinal flora. The French also use an aqueous decoction of several kinds of vegetables, but this lacks the special properties which render the carrot soup so beneficial, as Moro describes in detail.—*Muenchener Medezenische Wochenschrift*.

EDITORIAL

DR. EDWARD R. SNADER.

IN the sudden and tragic death of Dr. Edward Rowland Snader, the profession lost a distinguished member, the laity a wise counselor, the College a brilliant clinician and teacher, his associates a loyal friend and his family a devoted husband and father.

Dr. Snader was born January 10, 1855, in Lancaster county, Pennsylvania, where his ancestors had settled as early as 1668. His education was received in the public schools of Lancaster and Harrisburg, and his energies were at first directed towards journalism.

He entered the Hahnemann College of Philadelphia in the fall of 1881, graduating three years later in the Class of 1884.

For two years he was resident physician and clinical chief of the dispensary. In 1886 he was appointed demonstrator of Physical Diagnosis, and two years later lecturer upon the same branch.

In 1897 he was made Professor of Physical Diagnosis, and in 1907 was elected Professor of Practice of Medicine, and took his seat in the Governing Faculty of the College.

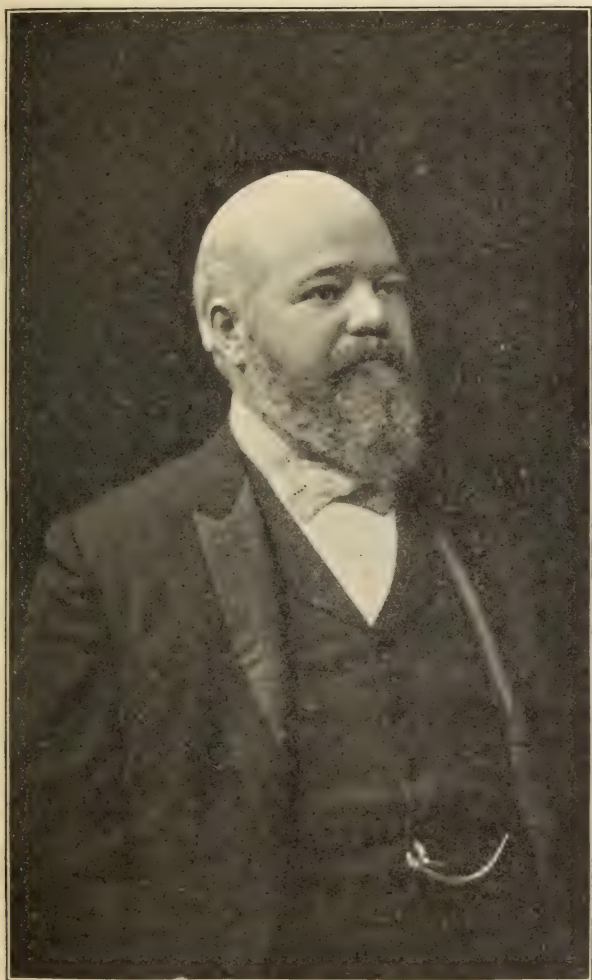
In addition to his college relations he was also physician to the Hahnemann, St. Luke's, Woman's Homœopathic and Children's Homœopathic Hospitals. He took an active interest in medical organizations and was a member among others of the County, State and National Homœopathic Medical societies, of the A. R. Thomas Medical Club, the Germantown Medical Club, the Hahnemann Club, the Oxford Medical Club, the Boenninghausen Medical Club, the Euphron Club and the Philadelphia Medical and Surgical Club.

As a diagnostician, Dr. Snader had few equals and no superiors.

He was a wide reader, a close observer and a keen interpreter of the symptomatology of disease.

His scientific and clinical papers showed that thorough grasp, and originality that marks the master mind in medicine.

His knowledge of diseases of the heart and lungs particularly and his reputation for thoroughness and accuracy placed him in command of a large and increasing consulting practice.



EDWARD R. SNADER, M. D.

Dr. Snader was a clear thinker and a forceful speaker, his discussion of any scientific topics was listened to with marked attention and respect. As a teacher he was earnest and impressive, possessing to a rare degree the power not only to im-

part his knowledge to others but what is still better, to train the student to analyze and think for himself.

To his more intimate associates who shared his friendship and confidence he was ever the loyal and sincere friend.

Frankness and complete candor marked his conversation and action, and no one more thoroughly despised sham and pretense. Large in heart, generous in impulse, honorable in mind, a keen lover of justice he was to a conspicuous degree incapable of intrigue or deceit.

Dr. Snader married, in 1894, Miss Martha J. McComb, who, with two sons, Edward Rowland Snader and Craig McComb Snader, are left to mourn his loss as well as share the heritage of his honorable name, the records of his noble achievements, and the precious memories that cluster around his gentle personality.

W. W. SPEAKMAN.

SOME RECENT DEVELOPMENTS OF PSYCHOTHERAPY.

THAT psychical methods of treating functional nervous diseases should continue to receive favorable attention among the laity, the clergy and even among a small proportion of medical men and that the results of this treatment are undeniably good in many instances, is quite disconcerting and even inexplicable to many medical practitioners imbued with the orthodox materialistic philosophy that characterizes modern medicine, and indeed modern science as a whole. We are living in a distinctly materialistic age and the whole tendency of modern medical thought is to disregard, theoretically, at least, every therapeutic procedure that is not based on the commonly accepted laws of physics or of chemistry. There exists a great abhorrence to what we commonly call the *supernatural* but which might be more properly denominated *superhuman*, for the view that any truth transcending the present state of the human intellect cannot exist is an example of intellectual arrogance that is as presumptuous as it is puerile and irrational. While we are justified in the claim that the gigantic achievements of modern medicine are among the foremost achievements of the mind of man we cannot safely close our eyes to the fact that we have merely picked a few pebbles here and there from the great sea of knowledge and that even the little we now believe to be estab-

lished as true is no doubt incomplete and largely mingled with fallacies.

We have felt called upon to utter this word of warning because of the tendency among many physicians to dismiss the subject of psychotherapy, especially when religious ideas are brought into association with it, as being unworthy of serious consideration. And it must be admitted by all that this attitude on the part of the medical profession is not without reason, for since time immemorial both religious and psychic methods have been employed by quacks and frauds as a cloak for their deceits and trickery, and even to-day a combination of these two factors forms the foundation stone of the most gigantic so-called "religious" fraud in America. That these agencies have been so frequently employed by charlatans is evidence, however, not of their uselessness but of their power for good, even in the hands of the ignorant and unskillful.

During the past two years an effort has been made by certain orthodox clergymen, notably by Dr. Worcester, of Boston, to attempt the treatment, in connection with medical practitioners, of certain functional nervous affections and drug habits by the employment of psychical and religious influences. While some few physicians have commended this movement, commonly known as the Emmanuel movement, a larger proportion of the profession has been very outspoken and positive in its condemnation of Dr. Worcester and his methods. Many of the objections raised are without doubt sound and valid, while others are based upon feelings of professional jealousy and still more upon the idea that only materialistic means can be expected to have any effect on the materialistic combination of protoplasmic cells which we term the human organism. It seems to us that this latter objection is neither in accord with modern progress nor with our present knowledge of facts. Nor do we feel that dogmatic statements and sweeping condemnations based on the supposed truth of this conception can be considered as either conclusive or justified.

For example, Burr strongly condemns the Emmanuel movement and classifies it with the occult and mystical because "it differs from the psychotherapy as practised by physicians in that there is claimed for it some power outside of the physician himself as being the thing that does the work." That Dr. Burr should be amazed at the temerity of any one who dares to claim that there exists in the realms of nature any higher thera-

peutic power than that inherent in the physician himself is certainly a triumph of his faith in his chosen profession, though his views can scarcely be cited as evidence of his profundity or breadth of knowledge. An article in the *Journal of the American Medical Association* by Weir Mitchell also serves as an illustration of the views of perhaps the majority of physicians. He says: "I have no doubt that very many cases of hysteria, neurasthenia, with obsessions and the like have been cured by simple country doctors using full rest treatment and nothing else. You cure the body and somehow find that the mind is also cured." Dercum also, in a recent article, voices the same opinion when he states that all functional neuroses are characterized by more or less impairment of the general health and that they are to a great extent the expression of asthenic states, and that improvement in the general health is followed by improvement of the nervous symptoms.

That there is a great deal of truth in the statements of the two authorities above referred to no physician of wide experience will question, but that they contain the *whole* truth is extremely doubtful. How frequently do we see, especially among the wealthier classes, men and women apparently sound from a physical standpoint, individuals who exercise the greatest care in diet, who are subjected to no mental or physical strain and who enjoy every advantage of travel, well-ventilated dwellings and mental diversion, and yet who suffer from a multitude of functional neuroses varying from simple insomnia to the most severe forms of neurasthenic states. To our mind the following views, recently set forth in an article by Dr. Worcester, appear to be more rational and more in accord with the facts of psychology and of practical experience: "In dealing with this type of cases," says Dr. Worcester, "it is necessary to distinguish between real nervous and *physical* fatigue and what may be called *psychical* fatigue. The former cases are benefited by moderately long periods of complete repose and by the withdrawal of every form of stimulation. The latter seldom require this treatment and may even be injured by it. When a muscle becomes weak and flabby it is strengthened, not by disuse, but by exercise and work. This exactly describes the situation of the persons I refer to. What is tired in them is their minds. They have become morbid, self-centered and egotistical. Their affections are blunted; their lives are useless and without purpose. They are tired of thinking of themselves and

of the weary treadmill through which they pass day after day. Unquestionably these mental states produce corresponding physical states of fatigue and general debility. Sometimes these physical symptoms are so marked as to require special treatment, *e. g.*, rest, but it must be rest alternating with work, otherwise we shall merely confirm our patients in their bad habits. For what these patients really need *is an aim and interest in life* an occupation that will not only interest them but also bring them back to a normal and wholesome method of living, to re-establish the broken ties, to rekindle cold affections, in short, to lead them to a life in which they can take pleasure because it is a life worthy of a man. In my opinion the best means to lead men and women from the condition I have described is to interest them in others. Work, to have a therapeutic quality, must impart to the worker a sense of success and of service. He must feel that he is accomplishing something that is really worth while."

Personally we can see nothing occult or mystical in these statements as they simply confirm the observations of daily life and reflect the wisdom of the wisest minds the world has ever known. Recognition is given to the truth that some states of nervous depression are entirely dependent upon states of physical asthenia, while emphasis is also placed upon a truth that both Dr. Mitchell and Doctor Dercum disregard entirely, namely, that morbid introspection and lack of normal aims and purposes in life are capable of inducing disorders of the nervous system as well as marked impairment of the physical powers. We believe that Doctor Worcester has gotten closer to the root of the matter than either of the authorities above mentioned. In those cases where the psychical factors are chiefly responsible for the patient's condition it seems only rational that the treatment should be largely psychical with the object of directing the mind into normal and invigorating channels. Rest in bed, isolation from friends, massage, hydrotherapy and the thousand and one other details of the stereotyped treatment usually doled out to these patients over many weeks or months may or may not be successful in relieving some of the more superficial manifestations of their malady, but as a rule the improvement is only temporary and in a few months the patient is taken to another sanitarium for a course of treatment or decides to try Osteopathy, the "Nature Cure" (whichever that may be) "New Thought," or some other fad or

fake that happens to be brought to his attention at the time. And after all has been done, Doctor Dubois, an orthodox medical practitioner of international reputation on functional nervous diseases, assures us most positively that the chief factor of therapeutic value in all these various methods, including the Weir Mitchell rest cure, is their psychological influence. If there is any truth in this view, and we are inclined to believe the statement of Dubois to be essentially correct in cases of psychasthenia, is it not time that the medical profession as a whole should give this matter serious consideration? Not with minds prejudiced by traditional opinions or limited by the materialistic conceptions of the past century, but with the spirit of true inquiry, desiring to search out and to utilize that which is true and useful wherever found, and with sufficient generosity of spirit to commend and to promote all influences that alleviate disease and that tend to lift the life of man to a higher and nobler plane.

PHOSPHATES IN URINE.—It is frequently desirable to determine the amount of phosphoric acid contained in a sample of urine. Since the customary titration with uranium solution is too difficult for the ordinary practitioner, Dr. Friedmann has devised a simple tube, which is filled up to the mark U with urine, and to the mark R with the usual magnesia mixture. After thorough shaking, the tube is set aside, and after 24 hours the height of the sediment will indicate the amount of phosphoric acid in the liter. The author found that the normal amount excreted within 24 hours with ordinary diet varies between 1.5 to 3.6 gms. Phosphaturia may be true or false; in the latter case the diminished acidity of the urine may cause a heavy precipitation, though the actual amount of phosphates present need not be above the normal. A precipitation of phosphates may, however, also be seen with a perfectly normal acid reaction of the urine, especially in sexual neurasthenia. The phosphaturia occurring with vomiting of pregnancy and throughout pregnancy is also as a rule spurious. In fevers there is an increased excretion, but this is due to the increased concentration of the urine. True phosphaturia occurs with diabetes mellitus and insipidus; certain bone affections, and in tuberculosis, also in chlorosis, oxaluria and uric acid diathesis. A diminution of the phosphates has been reported in pregnancy, pernicious anemia, leucemia, acute yellow atrophy of the liver, cirrhosis of the liver, multiple periostitis, arthritis, rachitis and renal disease.—*Muench. Med. Woch.*

GLEANINGS

THREE CASES OF FACIAL SPASM TREATED BY INJECTIONS OF ALCOHOL.—Hugh T. Patrick commences his report, (*Jour. of Neu. and Mental Diseases*, January, 1909), by differentiating tics from facial spasm by the following characteristics: Tics are habitual natural movements resulting from the obsessions of neuropathic individuals and are volitional movements, more or less under the control of the patient's will, as a consequence of which there occurs no disability in singing or uttering sentences.

Facial spasms are not symptomatic of functional neuroses, are always unilateral and are not capable of being controlled by the patient. They involve only part of a facial muscle in the beginning, and are a combination of tonic and irregular flickering contractions. The effect is a distortion, not capable of voluntary reproduction, that interferes with talking and singing.

Of three cases treated with the alcohol injections two were cured; the third failed to respond to treatment because of failure to reach the nerve with the injection, as evidenced by the absence of paralysis. The solutions used were of alcohol, from 40% to 75%, containing a little cocaine. Fifteen to twenty minims were injected immediately in front of the mastoid in order to reach the nerve at or near its emergency from the stylo-mastoid foramen. When successful the injection is followed immediately by the cessation of the spasms and appearance of a facial paralysis, which runs the usual course.

CHARLES D. FOX, M. D.

SOME PRINCIPLES OF CEREBRAL SURGERY.—Harvey Cushing (*Jour. of the A. M. A.*, January 16, 1909), advocates the acquisition, by neurologists, of knowledge of the principles and practice of surgery in order that they may do their own operating, like specialists in other branches of medicine. This is considered admirable because the surgeon cannot sufficiently understand the intricacies of neurology and therefore does not apply his general surgical knowledge and experience to the best advantage.

For the convenience of the anæsthetist, and because of the danger of cardiac and respiratory accidents during operations on the brain, continuous auscultation is recommended. This is procured by means of securing the phonendoscope to the præcordium with adhesive strips and the receivers to the anæsthetist's head by an apparatus similar to those used in telephone exchanges.

He emphasizes the danger of fatal consequences immediately following lumbar puncture in cases with increased subtentorial tension. Following the reduction of intraspinal tension in those cases the brain stem is forced down into the spinal canal by the abnormal subtentorial pressure and death results as a consequence of anæmia of the vital centres of the medulla induced by the excessive pressure against the edge of the foramen magnum and the walls of the spinal canal. He had had three such fatalities in his

own surgical experience and has observed three others in the medical wards as the effect of lumbar puncture in cases of unsuspected cerebellar lesions.

The author's subtemporal decompressive treatment is recommended for palliation of inoperable tumors, regardless of their location, and as a preliminary step in other cerebral operations. The advantage of this method lies in its comparative harmlessness because the hernia cerebri that follows consists of a so-called "silent" area of the brain and in addition excessive protrusion is prevented by reason of the support afforded by the temporal muscle and fascia. Furthermore, the bone in this region of the skull is the thinnest and is easily reached.

Decompressive operations over the site of an inoperable tumor are considered objectionable because of the possible occurrence of intracerebral hemorrhage due to displacement of the vascular tumor from protrusion of the brain. The author cites a fatal case of his own in which this accident happened.

CHARLES D. FOX, M. D.

DIAPHANOSCOPY OF THE EYE.—Diaphanoscopy is a method of illuminating the interior of the eyeball by a beam of light, much as the sinuses of the face are transilluminated by an electric bulb placed in the mouth. Its usefulness is limited to the examination of the anterior two-thirds of the globe. In a dark room the tip of the instrument is placed in contact with the lid or on the scleral conjunctiva and the difference in the translucence or transparency of the various tissues affords a very satisfactory method of differentiation and location of the various structures of the eye, of foreign bodies or of pathological growths. The instrument designed by Dr. Merdemann, is shaped much like a fountain pen and is manipulated in the same manner. In one end is a miniature, lens-capped electric lamp, which throws all the light forward through the tip of the instrument. A glass rod fills the space between the bulb and the end of the rubber tip which transmits the light undimmed and does not become heated for as much as ten minutes. While this method of examination reveals many otherwise unseen features of the cornea, iris, lens, aqueous and vitreous, it is in glaucoma that transillumination throw much light on the causes and changes present in this condition. It shows that in glaucoma the circumleutal space is always smaller than normal, and is sometimes even obliterated. Anatomical conditions, such as a narrow circumleutal space, predispose toward increased ocular tension and individuals of families who are prone to anterior glaucoma will most of them be found to have a narrow circumleutal space. It is in these cases of anterior glaucoma that diaphanoscopy offers great aid in diagnosis. In posterior glaucoma the findings are negative. The diaphanoscope is far superior to focal and oblique illumination for examination of the surface of the cornea and in operating for foreign bodies.—H. V. Wuerdemann, M. D., *Annals of Ophthalmology*.

WILLIAM SPENCER, M. D.

CONCERNING LACRYMAL SAC PROTHESIS.—To forestall the troublesome epipora consecutive to the extirpation of the sac, the author recommends the introduction of a silver lacrimal sac prothesis. Contrary to expectations, no obstructive granulations were observed in a case where the prothesis

was removed eight weeks later on account of a sinus complication. The procedure was tried in four other cases; the two which he exhibited were operated on about three and a half months before. There was generally only slight conjunctival reaction, and drainage into the nose occurred from the beginning. He starts his incision 3-5 mm. above the crista and cuts down to the bone. The periosteum is scraped away downward until the fossa lacrimalis is reached, thereby following the posterior surface of the sac. An assistant then pulls the sac and adjacent tissue towards the nose, while the operator seizes the outer skin covering and dissects it from the sac.

After excision and brief tamponade, the prothesis is introduced. A firm pressure bandage is necessary. Stitches are removed on the fifth day. In one of the patients he demonstrated the potency of the whole drainage tract by irrigating through the lower canaliculus, in two others only the potency of the canaliculi was demonstrated. The ordinary extirpation operation is always followed by obliteration of the canaliculi.

The prothesis operation is indicated in cases of chronic dacryocystitis when the sac was removed in toto and no buttonholing of the skin has occurred, cases uncomplicated with ethmoidal complications or complete obliteration of the naso-lacrimal canal.—W. Zimmerman, M. D., *Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

HEMORRHAGE IN EXTRA UTERINE PREGNANCY.—Hunter Robb has conducted a series of experiments upon dogs in order to determine the conditions present from hemorrhage in ectopic pregnancy. These experiments seem to show that in dogs at least, the hemorrhage from large internal vessels ceases before it is sufficient to prove fatal. No dog succumbed to the hemorrhage following excision of the ovary, division of the broad ligament with section of the left uterine vessels, section of the uterine vessels on both sides and other lesions. In none of these cases did the dog succumb to the hemorrhage although the author probably subjected his animals to as great a risk of bleeding to death as is incurred by the average woman from a ruptured tubal pregnancy. From these experiments, which of course cannot be recited in detail, he feels justified in believing that the intra abdominal hemorrhage, such as is met with in women suffering from collapse after the rupture of an ectopic gestation, is not sufficient in itself to cause a fatal termination in these cases. Death is caused mainly by shock, which may be increased by various procedures. The hemorrhage *per se* is rarely if ever the sole cause of death. Clotting probably occurs within 15 to 20 minutes after the vessels have been incised, and that the time of clotting can be known by observing the hemaglobin index. The subcutaneous injection of normal salt solution in all probability does not cause a renewal of the hemorrhage. The use of bandages and more particularly by the application of weight to the lower abdomen, the pulse is rendered slower and of better quality, and the hemaglobin is kept up. One experiment goes to show that the superadded shock attending immediate operation is likely to be very dangerous. It is this latter statement of the author, which has lately precipitated a debate as to the relative value of the immediate as opposed to the somewhat deferred operation.—*Amer. Jr. Obs.* Vol. 58, 577.

THEODORE J. GRAMM, M. D.

THE OPERATIVE TREATMENT OF PUERPERAL PERITONITIS.—Among the conclusions reached from a study of 18 cases, Leopold states that gonorrhœal infection shortly before or during pregnancy may influence the puerperium more dangerously than is generally believed. In such cases high fever with beginning peritonitis may occur on the third day or in some instances on the sixth day. Just this late appearance of fever is characteristic of gonorrhœal infection, and it may set in with acute peritonitis especially thrombo-phlebitis soon causing death. Long continued hemorrhage after abortion is associated with great danger especially when attended by fever. Peritonitis may easily arise. Of the various signs of commencing peritonitis and thrombo-phlebitis the most serious are the rapid small pulse, the hiccough, later the vomiting and chill. There will also be present abdominal pain, meteorism, and with thrombo-phlebitis pain in the fossa ovalis and œdema of the lower limbs. When the diagnosis of acute peritonitis is made, the opening of the abdomen must be made not later than the third day, for the purpose of giving exit to the pus. An opening should be made into the vagina from the space of Douglas, and irrigation and drainage made. If the veins are inflamed unassociated with peritonitis, the abdomen should be opened and the thrombosed vein tied and removed. The proper time to do this is when the chills point to the transportation of thrombi, and when this has continued for one or two days. In view of the fact that after an originally favorable course, pyæmia may set in even late, it is advisable early to tie off the thrombosed iliac or internal spermatic vein. We should remember that the danger from peritonitis or thrombo-phlebitis is always greater than that which attends an operation, but on the other hand after waiting too long the operation is not only dangerous but should not be performed.—*Arch. f. Gyn.* Vol. 85, 483.

THEODORE J. GRAMM, M. D.

THE TREATMENT OF PLACENTA PRAEVIA.—Kronig (*Freiburg*), believes that the results obtained by version and by hystereuryse are not yet as good as modern obstetrics may accomplish. The results recently published by Zweifel and Veit show a maternal mortality of from 6 to 10%, and a mortality of children amount to 60 or 80%. The cause of mortality is usually hemorrhage, while sepsis is only relatively seldom the cause. If the mortality is to be materially improved in the clinic, we must regard the question of how the hemorrhage can be better controlled. Hemorrhage often takes place before the cervix is dilated. It likewise occurs during the period of dilatation. Then presuming that version could be accomplished, the blood again begins to flow after delivery. Massage of the uterus and Crede's manual expression of the placenta sometimes fail, for in 10% of the cases manual removal of the placenta is required, and more blood is lost. Tamponade of the uterus is often performed, and not infrequently in from two to seven hours post partum, the patient dies. Anatomical studies on the part of several authors have shown that this post partum hemorrhage in placenta prævia arises primarily from lacerations of the vessels in the isthmus and upper part of the cervix. They have also shown that the conditions attending implantation of the ovum in the isthmus are analogous to those present in implantation of the ovum in the

tube, namely, the placental cells and villi have penetrated into the tissues of the isthmus. It is obvious, therefore, that the more these parts are dilated, the more likely is hemorrhage to occur, since these parts are deficient in contractility. It is for these reasons that the author advocates the classical Cæsarian section in these cases. If we can be certain that the placenta is not placed anteriorly, the cervical section might be performed. Thus the author saved his first case, operated by this method, but lost his next two cases, because the placenta was anteriorly attached. He refers to six cases successfully treated by the Cæsarian section.—*Zentralbl. f. Gyn.* Vol. 1908, 1497.

THEODORE J. GRAMM, M. D.

PNEUMONIA IN CHILDREN.—Dunlop believes that active therapeutic measures are of great value in the treatment of broncho pneumonia in infancy. The chief aim is to put the child into the best position to withstand the disease, and the indications for treatment are, therefore: First, to endeavor to prevent the digestive organs becoming deranged; secondly, to do all in our power to maintain the strength and vitality of the patient; thirdly, to keep the action of the heart constantly under observation; and fourthly, to prevent, if possible, the spread of the inflammation to fresh portions of lung.

A supply of pure air is one of the most important considerations, as one of the main causes of death is carbonic acid poisoning. All the cases of the author have been treated in a large, airy ward, kept at a uniform temperature, with abundant cubic space and cross-ventilation. He considers the system of treating these cases in the open air undesirable, as he cannot believe that the inhalation of a cold, damp, raw air acts beneficially upon an acutely inflamed mucous membrane.

His practice has been to surround the upper half of the crib with a tent, open in front so as to permit the free access of air. Inside the tent are hung towels wrung out of a solution of one part of eucalyptus oil to five parts of water. He is convinced that the evaporation of the moisture and the volatilization of the oil has a soothing effect on the inflamed mucous membrane and greatly diminishes the cough, and it is possible that its antiseptic action may tend to prevent the spread of the pneumonia to fresh portions of the lung. He instructs the nurse to change the position of the child in its crib frequently, and from time to time to take it up and carry it up and down the ward, to avoid the risk of hypostatic congestion.

The writer is a believer in the application of lightly made jacket poultices of one part of mustard to four or five of linseed meal, and applied three or four times a day for periods of a few minutes at a time. They redden the part, bringing the blood to the surface, act as a stimulant, relieve pain, and seem to be comforting to the child. He generally continues these applications for a week or ten days, or longer if required, at the commencement of an attack of pneumonia. Contrary to more recent views, he strongly advocates the use of alcohol in the vast majority of cases.—*British Medical Journal*.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CHRONIC CEREBRAL HYPERAEMIA FOLLOWING CONCUSSION OF THE BRAIN CURED BY MELILOTUS.—Following a head injury without external wound, a woman aged 40 years, suffered from severe headache of bursting, throbbing, violent character, chiefly occipital, but felt over the entire head, and making her feel at times as if she would go out of her mind. Various remedies, including gelsemium, aconite, belladonna, glonoin, silica, picric acid, and calcarea carb., were given over a period of several months. These were unavailing. The patient was growing worse; she became totally unfit for her household duties, and besides causing her to show signs of much irritability of temper, especially with her children. She could not bear noise, and was unable to read or write without considerable aggravation of her symptoms. She slept badly. Finally, melilotus 1x was prescribed, because its symptoms denote great engorgement of the cerebral vessels with terrible throbbing, headache as if the head would burst, a very red face, and a tendency to epistaxis. From the time she commenced taking melilotus the headaches became less severe and less frequent, and in a few weeks entirely ceased. The effects of the fall had lasted nearly eighteen months.—Dr. Stanley Wilde, in the *British Homœopathic Review*, January, 1909.

A CLINICAL EXPERIENCE WITH DIABETES.—A woman, aged 46, complained of great pruritus valvæ with glycosuria. Phosphoric acid 1x, gtt. ij, t. i. d., was prescribed and was continued for three weeks without benefit. Then the patient complained of great thirst, and the prescription was changed to arsenicum 2. and was continued for three months. Long before this course of medication had come to an end, the glycosuria had disappeared. The patient's diet was modified as to sugar and white bread.

A patient had diabetic gangrene which threatened to spread quite extensively. Uranium nitrate had been prescribed. Secale 1. was prescribed. The blush soon subsided, and after some weeks the toe dropped off at the second phalanx. It may be remarked that the same thing threatened two years ago, but it was avoided by medicinal treatment. The urine still contains sugar. Dr. A. E. Hawkes, in the *British Homœopathic Review*, January, 1909.

A LECTURE ON ACONITE.—In the Honeyman-Gillespie course of lectures on homœopathic materia medica, Dr. Wheeler gave a lecture on aconite of which the following is an abstract:

Aconite is the drug mainly responsible for giving its quietus to the practice of bloodletting. Those who naturally recovered best from the ordeal of bloodletting were those who had good powers of reaction and

whose fevers were consequently sthenic. It is just these cases of fever which aconite controls. So the introduction of the use of aconite for this character of fever competed with bloodletting in its strongest sphere, and by its manifest superiority to it soon abolished its general employment.

The active principle of aconite is the alkaloid aconitine, and as with other alkaloids, so with this, has been preferred by the orthodox school as being of more certain composition and constant strength. Homœopaths have, however, found the use of alkaloids rather disappointing, as they do not cover the whole activity of the drug, and, moreover, the provings were all made with the tinctures, and very few of the alkaloids have been at all adequately proved.

The homœopathic tincture is stronger than that of the British Pharmacopœia and is made from the whole of the fresh plant. It has a cumulative effect. The chief effects of a moderate dose are: In the tongue, pricking, tingling, and burning, as primary effects, followed by loss of sensation, first a stimulating, then a deadening. The lecturer here incidentally remarked that both the primary and secondary effects of a drug could be used in prescribing homœopathically, and though this seemed to involve a contradiction it was not so really. Drug action, he believed, was allied or identical with the action of ferments, which at a certain point took on a reversible action. The important thing is that the drug should have a special affinity for the particular cells affected, the disturbed cells being ready to have their action reversed by any substance having a sufficiently close affinity to influence them.

Continuing the pathogenesis: the same symptoms of pricking, burning, and numbness are felt in the mouth and throat as in the tongue; both feel swollen, and there is dysphagia, partly due to the pain and partly to the loss of sensation. Nausea, vomiting, colics, and even jaundice are caused. There is precordial anxiety. The pulse is slow and irregular with large doses, small, quick, and tense with small doses. The circulatory symptoms are those of immediate and violent reaction, the vital centres are directly affected, and especially the vasomotor centres. The skin is covered with an erythematous blush, or is pale and bathed in cold sweat. The motor sphere is but little involved, the sensory much so and chiefly the special senses; there are paralysis of accommodation, hyper-sensitiveness to light, and deafness, and pains in the ear. There are pains in the joints. Headache and giddiness, sleeplessness, restlessness, anxiety, and fear, especially fear of death. Dry mucous membranes, chilliness, shiverings, followed by heats, and these alternations of chill and heat recur in paroxysms, or waves of external chill associated with internal heat follow one another at short intervals. The action of aconite is cyclonic, violent, but of short duration. The heat is first felt in the hands, spreads over the body, and finally reaches the head, causing flushed cheeks and headache. This is the kind of chill and heat so often found at the beginning of a cold, and at the very commencement of some fevers, such as measles and pneumonia. It was recommended by Hahnemann for these, but he laid great stress on the importance of the mental symptoms coinciding—the impatience, restlessness, and anxiety; as unless this mental state is present aconite is not likely to be of much use. The aconite pulse is typically hard, full, and tense. Tenseness, as Dr. Hughes says, sums up the main characteristics

of aconite: tenseness of pulse, tense nerves, tense mental condition. The drug shows ability to react strongly, and it is in fevers where there is strong reaction that it is indicated, and is seldom of any use in septic fevers, like typhoid, when the state is one of depression. It is useful for diseases brought on by chills, cold winds, heat of sun—all reactive vasomotor effects. Its influence over excited circulation and tense arteries gives it its value in the insomnia of aged people, and in cerebral hemorrhage. It is of service for acute conjunctivitis where there is lachrymation, photophobia, pain, and even sudden transient blindness. It has an especial affinity for the fifth cranial nerve in high dilutions often cures trigeminal neuralgia. It will check a commencing tonsillitis, but is of no use when pus has formed. It is useful for acute colic, and for infantile diarrhœa, the result of exposure to cold; for suppression of urine, and for catheter fever, suppressed menses the result of chill; for acute hemorrhages. The pains in the chest and dry cough caused by it makes it homœopathic to pleurisy in the first dry stage, and the anxiety in the præcordia, the stitching pains and palpitation, suggest it for rheumatic heart affections. Aconite belongs to the family of the Ranunculaceæ, and resembles another plant of that order, the *Ranunculus bulbosus*, in the stitching pains it causes in the chest. It resembles *veratrum viride* in its action on the pulse, but with *veratrum viride* the pulse is usually quicker and less tense. It is like *ferrum-phos*, in many respects in its influence on fevers and tendency to hemorrhages, but with *ferrum-phos* the pulse is full and soft instead of being full and tense. Sulphur follows aconite well and resembles it in many ways; it has been called the chronic of aconite. Aconite symptoms are aggravated by heat, stimulants, and motion. Antidotes are *coffea* and *nux vomica*.—*British Homœopathic Review*, January, 1909.

TETANUS AND CARBOLIC ACID.—Dr. A. H. Seibert reports a case of tetanus which showed no improvement under ordinary lines of treatment, but which began to improve when carbolic acid in two per cent. solution was administered hypodermically in doses of 10 minims every 2 hours.—*Medical Century*, December, 1908.

BELLADONNA AS A PROPHYLACTIC OF SCARLET FEVER.—Dr. J. E. Reese, of La Crosse, Wis., has prepared a thorough review of the literature of this subject and offers the following conclusions: (1) Belladonna is homœopathic to and preservative against the modern form of scarlatina in a great majority of cases; (2) the disease is milder in persons who contract it after Belladonna treatment; (3) Dr. Velsen, of Cleves, declares that when given as directed, the drug is harmless; (4) it is practically the only prophylactic in scarlatina which has a scientific basis and clinical experience to justify its use.—*Medical Century*, December, 1908.

PSYCHOSIS ARTERIOSCLEROTICA.—By Dr. v. Olah (*Jahresbericht f. Neurol. u. Psychiatrie*, Vol. II, 1907). In a lecture delivered before the psychoneurological society in Budapest, the author describes his personal observations in regard to the relation between arteriosclerosis and psychosis *arteriosclerotica*, arriving at the following conclusions:

- I. The demonstration of arteriosclerosis, be this ever so extensive, does

not necessarily indicate the existence of cerebral arteriosclerosis or imminent danger of its development.

2. Sclerosis of the cerebral arteries, even in its severest form, does not give rise to neuropathological or psychopathological phenomena. It may be stated that physiological cerebral arteriosclerosis does not create a predisposition for psychosis arteriosclerotica.

3. If in the general arteriosclerosis, the subjective cerebral symptoms (vertigo, headache) point to the existence of a cerebral arteriosclerosis, and if abnormal psychic phenomena become manifest, this does not conclusively show the presence of psychosis arteriosclerotica, since cerebral arteriosclerosis may occur in other types of dementia.

4. The time of life at which arteriosclerosis is apt to appear has a psychosis of its own, with an unfavorable prognosis, the milder or graver degrees of which have no connection with cerebral arteriosclerosis.

5. Although these abnormal psychic phenomena may appear single or combined, in other psychoses—such as paralytic dementia, senile and hysterical dementia, neurasthenia, traumatic neurosis—the entire symptom-complex cannot be incorporated in any of the above-named clinical pictures.

6. A cardinal symptom, to ascertain and confirm the diagnosis under all circumstances, does not exist.

7. The essential and principal symptoms are: Local disturbances of the motor sphere, transitory in character; hemiparesis of individual extremities; transitory disturbance of speech; temporary inhibition of perception; failure of memory; aphasic disturbances; irregularities in the area of the organs of special sense, sometimes restriction of the visual field; transitory increase of the reflexes; normal behavior of the pupils. The outcome of the disease in dementia of a special type.

8. The arteriosclerosis cannot be designated as the immediate cause of the affection. It is far more probable that the histological structure of the arteries is affected, as in other diseases associated with cellular destruction.

9. The remote causes of the disease are unknown, and must be referred to diminution, weakening, and wear-and-tear of the vital power of the organism. This wear-and-tear taking place under the above-described manifestations, constitutes a progressive specific nosographical unity, with clinical features of its own.

10. Aside from the objective findings, the patients are amenable to suggestion, but their mood is characteristically hopeless and despondent.—*The Post-Graduate.*

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

RENAL TUBERCULOSIS.—Dr. Heresco, of Bucarest, reports that *renal tuberculosis* is primary in the urinary apparatus, and unilateral in the majority of cases, especially at the onset. It has a progressive and fatal course, with comparatively long remissions. It is incurable by remedies and to arrest its local or general effects only surgical intervention can render good services. *Nephrectomy* is the indicated operation, and the sooner it is performed the more satisfactory the results. *Nephrotomy*, which is only palliative, should only be employed when *nephrectomy* is *counterindicated*, that is, when the general state is bad and the double renal lesions are advanced. The results obtained by *nephrectomy* are improved in evident manner by the new methods of exploration of the renal functions, and the gravity of this operation, so marked at the onset, becomes insignificant. But to obtain such results it is imperative that the disease should be ferreted out at the outset, and once convinced its evolution cannot be arrested by medical treatment, to transfer the case to a surgeon as soon as the diagnosis is confirmed.

An *early* diagnosis and an early *nephrectomy* are the actual precepts of renal surgery for *renal tuberculosis*.—*La Grece Medicale*.

SALOL AS A DENTIFRICE.—*Salol* is a combination of *Phenol* and *Salicylic acid*, in the proportion of 4 parts of phenol, to 6 of acid. It is insoluble in water and glycerin, but soluble in 10% of alcohol, in ether, in the oils and in vaseline. Due, to its aromatic odor and antiseptic properties, the latter probably on account of the slow decomposition when in contact with albuminoid matter, it has been, and is used as the chief ingredient of many *liquid dentifrices* and *tooth powders*; and there have appeared, of late, some of the so-called *skin foods* containing this salt. But we should bear in mind that *Salol* has an *irritating action on the mucous membranes*, especially on the *labial mucosa*, where it has produced distressing *eczemas*, and I have myself observed an *obstinate eczema of the labial commissures* following the continued use of a *face cream* containing it.

From *Drug Topics* of December last, I take the following: "As pointed out by M. Dubreuilte, in the *Journal de Medicine de Bordeaux*, dentifrices containing *Salol* frequently produce *eczema* on the lip and in the buccal cavity, extending at times over the face beyond the lips, and causing an unsightly appearance and local irritation. In such cases it is necessary for the patient to cease to use dentifrices containing *Salol*, and if this be done the symptoms will soon disappear. *Salol* readily splits up in contact with moisture into *salicylic acid* and *phenol*, and without doubt it is to these constituents individually that it owes its antiseptic properties. The liberation of comparatively large quantities of these antiseptics in the mouth in the free state when repeated once a day or more frequently is therefore liable to produce unpleasant consequences."—*Lancet*.

And yet O. Martin (*Formulaire Magistral*), recommends a pomade of 2 to 4 grammes of *Salol* in 40 grammes of vaseline for *erythema*, *chapped lips*, *chilblain* and *other skin affections*.

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THE DIAGNOSIS OF INCIPIENT PULMONARY TUBERCULOSIS.

BY

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(Read before the New York State Homœopathic Medical Society, Albany, N. Y., February 9, 1909.)

WITH our present knowledge of pulmonary tuberculosis, it is obviously superfluous to dwell upon the importance of its early diagnosis. There seems, however, to be a disposition on the part of some practitioners to postpone making a definite diagnosis in suspected cases, because certain characteristic symptoms are lacking, and to wait for their future development.

The essential clinical factors which manifestly must be considered in connection with the recognition of pulmonary tuberculosis in the earlier periods are: predisposition, the subjective symptoms, physical signs, and tuberculin reaction.

Predisposition may be conveniently viewed from the standpoint of those factors which belong to the physical economy of the patient and those which are extrinsic, namely, his surroundings. In the first instance, we are confronted with the question of susceptibility.

Susceptibility, or the inability to resist infection by the invading bacilli, we know depends upon several conditions. There is still undoubtedly a more or less general belief, especially among the laity, that there is something almost if not entirely specific in hereditary tendency to tuberculous infection. This arises from the fact that the antecedents of those affected show

a percentage of infection which varies from 10 to 50 per cent., according to different estimates. We also observe families in which a number of cases have appeared, the offspring of the tuberculous, some of them possessing the so-called phthisical physique.

But let us look on the other side. Given the large percentage of tuberculous ancestry mentioned, it follows that an equally large, or larger, number of cases have no such ancestry. Again, while it is true that there are families in which several members have died of tuberculosis, there is an equally large number of cases which are solitary, so far as family association is concerned.

We are thus forced to the conclusion that susceptibility depends upon two influences, one which is inherent, and one which is accidental. In acknowledging the former, there is no positive proof to show that it is of a specific nature, although that is possible.

Is there any type of physique which may be regarded as especially prone to tuberculous infection?

We are all familiar with the classical phthisical physique which has come down to us from ancient times. This type is simply indicative of a weak constitution and feeble resistance against tuberculous infection. On the other hand, there are families which do not appear to evince any great amount of vigor which show marked resistance to infection. In contradistinction, again, we meet many cases in the Metropolitan Hospital on Blackwell's Island which show the relics of a fine physique.

Before leaving this question, let me recall the fact that hardy and vigorous races which have previously been free from tuberculosis,—such as the North American Indians and the Eskimos,—show more susceptibility. But this feeble power of resistance on the part of the races mentioned, as we know, does not apply to tuberculosis alone. Any infectious disease new to a race seems to be especially virulent. A certain degree of immunity is acquired by the survivors, and is transmitted to the succeeding generations. We therefore conclude that Nature gradually develops in successive generations a resistive power and relative immunity, and that succeeding generations have an inherent force which their ancestors did not possess. It is said that the Chinese, who live in most unhygienic surroundings and among whom tuberculosis has existed for time

unknown, show a marked resistance. I have not, however, been able to verify this statement, but in an article on the opium habit in China, published recently in the *New York Tribune*, the writer claims that those Chinese who are addicted to the use of opium show a remarkable power of resistance to tuberculosis, while the disease is very prevalent among the non-users, and that Christian converts, on giving up the drug, more readily fall victims.

The relationship of the heart to susceptibility to pulmonary tuberculosis, is most important. Relative smallness of the heart is now recognized as a predisposing factor. Such a condition implies a relatively feeble circulation through the lungs and a corresponding state of feeble nutrition,—hence feeble resistance to infection.

Disease of the aortic and mitral valves, arising from endocarditis and arteriosclerosis, when attended with well-marked hypertrophy, according to Rokitansky, “offers an extraordinary immunity to tuberculosis,” or, to quote that writer more fully, “Cyanosis, or rather every disease of the heart, vessels, or lungs that causes cyanosis, is incompatible with tubercle formation.” This statement, made in 1836, is now before us again, and pathological research seems to verify it. Out of 163 autopsies made at the Metropolitan Hospital on persons who had died of pulmonary tuberculosis, according to Dr. Stow, pathologist to that institution, lesions of the above nature were discovered in only three. The passive hyperæmia incident to aortic and mitral disease is conducive to a high state of nutrition in the lungs, and consequently greater resistance to infection. There are, perhaps, other factors which lie back of endocarditis and arteriosclerosis which may have some influence,—these are diatheses. In the first instance, acute articular rheumatism is the chief underlying cause; while in the latter, a very large proportion depend upon the so-called uric acid. It is noticeable that in neither rheumatic, or lithæmic, or gouty persons, does pulmonary tuberculosis prevail to any great extent. As a rule, the valvular murmurs which are heard in pulmonary tuberculosis cases are either anæmic or the result of dilatation due to fatty degeneration,—a condition of frequent occurrence in the later stages of the disease.

Before discussing the initial symptoms, let us recall what some recent writers describe as the “pretuberculous state.” This is a feeling of lassitude both mental and physical, ab-

sence of fever or pulmonary symptoms or signs but possibly an undue increase of pulse rate on slight exertion, and excess of alkalinity of the urine. Recent experimentation seems to bear out this observation, as it shows that in early tuberculosis there is a decided lowering of the acids in the urine.

Among subjective symptoms, cough most frequently first attracts attention. In the early periods it is often only a little more than a hack, usually dry; so slight may it be that frequently it is disregarded by the patient. On questioning, I have often found that while a certain date is given for the onset of what has been regarded as cough, there was a period of several weeks or months previous in which there was a slight hacking cough that had not been taken into account.

In the great majority of instances, bronchitis is the first manifestation. Any bronchitis which continues for two months should always excite suspicion.

Vasomotor irritability, as evidenced by alternate flushings and pallor, chills and sweating, sometimes assuming the semblance of malaria, are occasionally types of onset.

Long-continued hoarseness, anæmia with prostration and slight fever in the afternoon, gastro-intestinal disturbances with anæmia and cough, especially in young persons, are also occasional early manifestations of the disease.

Expectoration is a varying symptom. While commonly looked upon as an essential to pulmonary tuberculosis, it is a mistake to regard it as such in the initial stage of the disease. According to Dr. A. H. Garvin of the Raybrook State Hospital for Incipient Tuberculosis,* cough with expectoration, while heading the list of symptoms as to actual frequency, in a given number of cases, was present in only 44 per cent.

The failure to recognize a case as tuberculous, notwithstanding the presence of physical signs of change in the lungs and suggestive subjective symptoms, because bacilli are not found in the sputum is a source of error now so well recognized that it scarcely calls for discussion. In this connection, permit me to emphasize the importance of repeated examinations. Sometimes after a dozen or more failures the bacillus will be found.

Excessive loss of weight alone is always a suspicious symptom.

*Medical Record, January 30, 1907.

An abnormally rapid pulse in a person under middle age, without other definite cause, is likewise suggestive.

Occasionally, hæmorrhage is the first symptom to attract attention, but in many of these cases examination will reveal that a considerable change has taken place in the lung, and that the disease is really not in the incipient stage. In such instances, failure to observe the true condition earlier often arises from the latency of the early symptoms, or neglect of the same. On the other hand, some of these cases are negative so far as physical signs are concerned. Here we must rely upon the X-ray, which may disclose the seat of the hæmoptysis, and the tuberculine tests.

The influences which surround the patient which are conducive to the development of tuberculosis are usually so apparent, especially among the lower classes, that their discussion, notwithstanding their importance, is unnecessary.

In considering the physical signs, it is well to bear in mind the fact that we are viewing tuberculosis of the lungs from the standpoint of incipency. This implies absence of the usually readily distinguished evidences which attend extensive changes and limits us to those conditions which are less easily recognized. It would therefore, perhaps, be well to recall the physiological differences between the two sides of the chest. On the right side, the percussion note is frequently slightly higher in pitch, vocal resonance and fremitus more intense, and the breathing murmur a little more harsh. Hence, it follows that if these conditions exist on the left side they must be regarded as suggestive of change in the lung tissue. Physiological differences are generally more marked in women than in men. It should also be remembered that these differences are always very slight, and that relative length of inspiration and expiration are not changed in health.

As to the physical signs in detail, it is needless to say that in every instance all clothing should be removed from the chest during examination, and that the patient should be placed in a room with good light and free from distracting noises. Inspection, so important in advanced cases, is much less so in the incipient. Many such cases appear well nourished, with good color, and well-shaped chests. By carefully observing,—standing behind and looking downward,—we may detect loss of expansion or delay of the same on one side.

Palpation simply corroborates other signs; it is negative,

however, in incipient cases. It should always be performed with the palms of the hands laid upon the chest.

Consolidations which are sufficiently developed to give rise to local increase of fremitus can scarcely be called incipient.

Percussion should be both light and deep, care being taken to place the fingers between the ribs. Light percussion more readily elicits superficial lesions and pleuritic thickening. Percussion of the apices, according to Krönig's method, should be performed, and any evidence of shrinkage observed by careful measurements.

By auscultation, as all recognize, are to be found the most positive signs. In incipient cases, the evidences of changes vary from alternation in the duration and quality of the respiratory murmur at the apex to the presence of a limited area of crepitant râles in the same locality. Prolongation of the expiratory murmur with intensification or harshness, is evidence of a catarrhal condition of the bronchial mucous membrane, and when it occurs at the apex it may be the earliest manifestation of commencing consolidation. Again, the pitch of the respiratory murmur may be only a little higher than normal. In the consolidation of pulmonary tuberculosis the pitch is not so high as in the instance of pneumonia, as the density of the tissues is not so great. Feebleness of the respiratory murmur is another sign. It may be due to thickening of the pleura or to occlusion of the alveoli from infiltration. Cogwheel respiration, while suggestive, frequently occurs in non-tuberculous lungs.

After the breath sound changes, the voice and whisper resonance must be observed. Both are usually intensified over infiltrated areas. When the breath sounds are feeble they are also usually diminished. The presence or absence of râles should be carefully noted, character, and the extent of their area. Deep breathing is sometimes necessary in incipient cases to call forth râles. The absence of râles on deep breathing may be regarded of favorable significance.

Auscultation during cough is very important in incipient tuberculosis. A chest which may be free from râles on breathing may on cough show the presence of some. These may be of various types,—from fine dry râles, to coarse, sonorous, or sibilant râles. The former are less liable to be heard in ordinary breathing, and the latter more so. Causing the patient to cough once slightly, following this with a deep inspiration,

is another means of eliciting the presence of fine râles. If no râles are discovered, the measure may be repeated. It is needless to say that auscultation should be practiced with equal care posteriorly and anteriorly.

It is obvious that the physical signs must be taken collectively and with a view as to their relative importance. The presence of some harshness of the respiratory murmur with prolongation of the expiratory alone, is certainly vastly less significant than the presence of crepitant râles. Again, those who have examined a large number of cases agree that in a certain proportion some of the physical signs are negative notwithstanding the positive character of others. There is no satisfactory explanation to offer, so far as I know, for these phenomena.

The X-ray will not, I think, reveal changes at the apex which physical signs do not, yet it will disclose certain features which ordinary physical examinations are incapable of revealing. It will show the presence of infiltration at the root of the lungs (the bronchial glands) near the spinal column, a change sometimes present in early cases not discernable otherwise. It will also show the presence of isolated calcified tubercles, which are not discoverable by other means. Tuberculous deposits of this variety may undergo ulceration and prove the source of hæmoptysis. Some of the obscure cases of hæmorrhage with negative physical signs, to which allusion has been made, are of this nature.

Williams' sign is another valuable diagnostic feature alone discoverable by the X-ray. The movements of the diaphragm on the right side in health are $2\frac{3}{4}$ inches, on the left, $2\frac{1}{2}$. In pulmonary tuberculosis, the movements of the diaphragm are diminished on the affected side. This phenomenon, called Williams' sign, manifests itself very early and may be regarded as one of the earliest symptoms.

Another important factor in the diagnosis of tuberculosis is tuberculin. During the last few years its use has been greatly extended, and when properly applied it affords a most valuable guide. As is well known, there are four methods of its administration,—the subcutaneous, the cutaneous, the ophthalmoreaction, and the Moro, or percutaneous reaction. The subcutaneous method is based upon the fact that tuberculin, even in large doses, injected in persons free from tuberculosis does not produce symptoms, while if tuberculosis is present a reac-

tion follows within the course of a few hours. This reaction consists of a rise of temperature, general feeling of malaise, accompanied by local reaction at the point of puncture,—the latter consisting of hyperæmia and a tendency to ulceration. On the other hand, tuberculous patients react to very small quantities of tuberculin, and the dosage accordingly is minute. The following is the method of application: The pulse and temperature of the patient are carefully observed for from four to seven days. If these are found to be normal, or only slightly above, the first injection is administered, giving .5 mg. of old tuberculin. If there is no reaction in from three to four days, the same dose may be repeated. If the temperature is irregular, a longer period should be allowed to elapse before the third dose is given. If there is no reaction after the first dose, the second dose may be increased to 1.25 mg. The same dose may be repeated after two or three days. If again there is no reaction, the dose may be increased to 2.5 mg., which is the maximum. This may be repeated. Repetition of the same dose is emphasized by observers as important, for not infrequently a slight or only suggestive reaction after the first administration may be followed by severe symptoms after a second.

A rise of temperature of 1° F. or .5° C. above the previous maximum is considered positive. Great importance is also attached to the development of local and general symptoms. Even in the absence of much rise of temperature, these phenomena may be considered as evidence of a positive reaction. Contraindications to the employment of this method are recent hæmorrhage, nephritis, renal tuberculosis, and extreme malnutrition.

The cutaneous or von Pirquet method depends upon the fact that the cells of a person infected with tuberculosis are very sensitive to tuberculin, and when brought in contact with it are stimulated to a very great production of antibodies. The phenomenon is characterized by hyperæmia and inflammation at the point of application. Von Pirquet first called attention to the fact that the application of tuberculin to the skin after scarification, the same as in vaccination, was followed by hyperæmia and an inflammatory reaction. The latter is characterized by the development of small papules followed on their disappearance by a brownish pigmentation. These phenomena which constitute the reaction in positive cases of tuberculosis, are not accompanied by fever or general symptoms.

The technique of its application is practically the same as that employed in vaccination against smallpox. The surface of the skin is cleansed and sterilized, then a drop of Koch's old tuberculin, preferably diluted 25 per cent., is placed on the skin and the point of contact scarified. It is unnecessary and undesirable to draw blood. At a distance of about an inch, a control scarification is made. The two points are then compared. The control will simply dry, while the test point, if positive, will show the inflammatory reaction with elevations of the skin surrounding the point of scarification, somewhat suggesting urticaria.

The features of the von Pirquet method are its simplicity and extreme delicacy.

The ophthalmo-reaction was simultaneously the discovery of Calmette and Wölff-Eisner. It consists of the instillation into the eye of a dilute solution of tuberculin. If the case is tuberculous, a local reaction in the form of a conjunctivitis follows in a few hours, then congestion of the palpebral conjunctiva and caruncle, with more or less abundant secretion. The reaction disappears in from twenty-four to forty-eight hours.

The Moro reaction consists of the application of a combination of equal parts of old tuberculin and anhydrous lanolin, the mixture being made at a temperature of 20 to 30° C. The ointment is vigorously rubbed in for from one-half to a full minute, an area of about two inches being so treated. Reaction, or a positive effect, is shown by the presence of an eruption of a granular or papular character. This eruption is not confined to the point of application but extends to surrounding areas. After a few days it dries and leaves a brownish pigmentation which remains for several weeks. General symptoms, such as rise of temperature, do not develop. Moro divides the type of reaction in positive cases into three grades,—mild, medium, and strong. In all there is more or less itching. The most marked reactions occur in scrofulous conditions and tuberculosis of the bone, the weaker in pulmonary tuberculosis.

An important feature in the application of these tests is that advanced cases of tuberculosis fail to react. This is due to the fact that such persons do not possess the antibodies in their blood, for the reason that they have been used. A non-tuberculous person fails to react because the antibodies do not exist

and never have existed in his blood. Another important point is that all other tests will give reaction in persons clinically free from any tuberculous manifestation. This is readily explained when we recall the statement that comparatively few adults are entirely free from tuberculosis,—that is, latent tuberculosis deposits. From 60 to 75 per cent. of adults clinically free from tuberculosis respond to the reaction.

In regard to the merits of these tests, notwithstanding much has been written, it is difficult to draw definite and positive conclusions, as different observers give somewhat conflicting statements. For example, we read that the tests are absolutely harmless; while on the other hand we are cautioned against the indiscriminate use of tuberculin injection tests. Again, Drs. Hamil, Childs, Carpenter, and Cope report, in a series of experiments performed on 134 children under eight years of age, that sometimes severe inflammation of the eye followed, with subsequent loss of vision.

Dr. E. von Emmerich reports concerning the value of the cutaneous and the percutaneous methods, that he does not consider the former of any value in adults, and that by the Moro reaction fewer reactions occur in clinically free tuberculosis persons. Moreover, the Moro reaction has the advantage of being much more readily employed, and is harmless.

The ophthalmo-reaction is comparable with the old injection method, both are reliable, but the last more so. Later reactions are more frequent in cases of arrested tuberculosis, while advanced cases give slight reaction. Failure to react is of great importance. The disastrous results which, in some instances, have followed the ophthalmo-reaction call for extreme caution in its application, if not its total abandonment.

In conclusion, it may be said that with the data at our command at the present time, the use of tuberculin as a diagnostic agent should be limited to obscure cases characterized by persistent marked loss of weight and high pulse, without any explainable cause, where repeated examinations of the sputum have proved negative, and the physical signs are likewise negative,—especially when there is the history of prolonged exposure to the infection.

And of the various methods the Moro and injection are best suited to adults; the von Pirquet acts well in children; while the ophthalmo,—for children, at least,—should not be employed.

THE CONTROL OF TUBERCULOSIS IN NEW YORK CITY.

BY

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(Presented to the Homœopathic Medical Society of the State of New York, February 9, 1909.)

THE complete system in vogue in New York City for the control of tuberculosis is not generally known, and for that reason I have chosen it as my text for a paper to present to this Society to-day.

In 1893, through the initiative of Dr. Hermann M. Biggs, the Department of Health of New York City, placed pulmonary tuberculosis in the list of communicable diseases to be reported by the attending physician. At first, owing to strenuous opposition on the part of the medical profession, the reporting of such cases was optional. Since 1897 it has been compulsory. For the same length of time public institutions have been required to report all cases in their care. Cases reported, if under the care of a private physician, are not visited by Department Inspectors except by request. Every twelve months the Department makes written inquiry about such patients. When a tuberculosis patient changes his address, the Department must be notified, and the premises vacated must be fumigated or renovated.

Whenever a physician so desires, the Department of Health will make examinations of sputum for the tubercle bacillus free of charge. If the examination proves negative, no harm is done; if positive, the case is immediately registered by the Department as one of tuberculosis. The Department has also prepared a number of circulars of information on tuberculosis, for the use of physicians and patients, which can be had on application. The titles of some of the most important are:

"Information for Consumptives and those living with them."

"Don't Spit."

"Advice for Patients."

"Rules for Sweeping and Dusting."

"Consumption Cures, A Warning Against."

"Tuberculosis Catechism."

“Tuberculosis Regulations.”

Any or all of the above will be supplied directly to the patient, or through the physician.

Notification and registration is the first and most important step in the control of tuberculosis. If the patient has his own physician, the Department merely keeps in touch with the case once in twelve months. If the patient cannot afford his own physician, then the Department follows up the case through medical inspectors, or visiting nurses, or both. Ambulant cases are referred to dispensaries. Advanced cases are referred to sanatoria or hospitals. In certain cases where the patients refuse to carry out sanitary instructions, they are forcibly removed to Department institutions.

Next in importance to notification, is the establishment throughout the city of special tuberculosis clinics for poor patients. The Department of Health organized a number of such dispensaries two or three years ago, and others were organized by different institutions. Finally, in 1907, the active heads of ten of these clinics organized themselves into the “Association of Tuberculosis Clinics,” which association has been recently incorporated. Several other clinics have lately been admitted to membership in the Association, including that at the Flower Hospital. At present this Association includes only the Boroughs of Manhattan and the Bronx.

I will quote from the Association announcement as to what has already been accomplished:

“A district scheme has been devised by which a special district has been apportioned to each clinic. Patients are required to attend the clinic in the district of their residence, and whenever application is made to the wrong clinic, the patient is promptly referred, by a proper card, to the clinic located in the district of his residence. Patients receive free medical treatment and advice, if not able to pay, and are visited regularly in their homes by experienced trained nurses. In some instances, milk and eggs are provided by the clinics as part of the treatment. Clothing, payment of rent, and general charitable relief is either rendered by special funds administered by the Dispensary nurse, or, as is more frequently the case, through proper benevolent organizations. Hospital and sanatorium care is secured for those who need such treatment.”

The objects of the Association are:

"First. To organize Dispensary control of pulmonary tuberculosis in New York City.

"Second. To develop a uniform system of operation of such Dispensaries as are organized for this purpose.

"Third. To retain patients under observation until they are satisfactorily disposed of, and to prevent them from drifting from one Dispensary to another.

"Fourth. To facilitate the attendance of patients at the Dispensary most convenient to their homes.

"Fifth. To facilitate the work of visiting nurses in the homes of patients.

"Sixth. To provide for each patient requiring it assistance by special funds or benevolent organizations, and proper hospital or sanatorium care.

"Seventh. To co-operate with and assist as far as possible the Department of Health in the supervision of pulmonary tuberculosis."

Each clinic must have a visiting nurse to visit the homes of patients, to give general instructions as to the precautions to be used to prevent contagion, to refer suspected cases to the clinic for examination, to report on whether or not special aid in the way of food, money, or clothing is needed.

A system of transfer cards is used to refer cases that stray into the wrong clinic to the proper one. A uniform system of records is now being devised for the use of all members of the Association, in order to facilitate uniformity in the work. The Department of Health supplies circulars of information and instruction for the dispensary patients.

Affiliated with the Association of Tuberculosis Clinics are representatives from various charitable organizations, of some of the out-of-town sanatoria, and of the Department of Public Charities. In this way every one directly interested in the tuberculosis problem is kept in touch with what is being done to control it.

Poor persons in the incipient stages of tuberculosis, desiring or needing sanatorium treatment, are partly provided for by the City Department of Health at Otisville. That is, there is an institution for incipient cases at Otisville which is at all times filled to its full capacity and has a waiting list. Men only are received at present. Besides Otisville, there are a number of private sanatoria that maintain a few free beds for poor persons. For advanced cases, the Department of Health has a

sanatorium on North Brothers' Island. The Department of Public Charities maintains the Tuberculosis Infirmary of the Metropolitan Hospital on Blackwell's Island, which institution, as you all know, is the largest of its kind in the world, and is under Homœopathic control. The Charities Department also maintains wards for consumptives at the Kings County Hospital in Brooklyn. There are several other hospitals in the city where poor consumptives are cared for free of charge.

From the foregoing, it will be seen that the supervision of consumptives in New York is quite comprehensive.

1. Notification to the Department of Health of all cases under the care of physicians or institutions.

2. District Dispensaries, which through their visiting nurses keep track, not only of patients who apply for treatment, but constantly find suspicious cases which are referred back to the Dispensaries.

3. Sanatoria and hospitals where patients are taken care of.

4. The various charitable organizations which supply help of kinds other than medical, on request of physicians or dispensaries.

THE SEQUELAE OF CEREBRO-SPINAL MENINGITIS. Of all the meningitides, the cerebro-spinal caused by the meningococcus intracellularis Weichsebaumii offers the best prognosis, in the various epidemics, the death rate ranging from 20-80 per cent. In studying the sequelæ Dr. L. Cohn (*Berl. Kl. Woch.*, 1909, Nr. 2), arrives at the following conclusions:

- (1.) In all light cases a perfect cure, in the clinical sense, is noted.

- (2.) In the graver, even the gravest cases, a complete restitution to health without sequent disturbances, is possible. The probability of cure without sequelæ is greater in children than in adults, in the latter, traces of the disease sometimes being evident even after 2½ years.

- (3.) Hydrocephalus may appear even after four weeks of apparent recovery.

- (4.) Deafness is the complication most to be feared. Whilst all paralytic symptoms or even the choked optic disk may vanish, deafness, once established, is irreparable.

- (5.) Agglutination of the blood serum with meningococci was positive in two cases for more than two years.

THE BASIS OF THE EMMANUEL MOVEMENT.

BY

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(Read at the Annual Meeting of the New York State Homœopathic Medical Society, at Albany, N. Y., February 10, 1909.)

OF late the Emmanuel Movement is attracting much attention. Its sponsors take it seriously, and are bringing it to public notice by contributions to the popular magazines. Worcester, McComb and Coriat have written a book, entitled, "Religion and Medicine," in which they present their position. The movement is one that every physician must hear of from his patients, at least for a time, and it is worth while to pause and consider what the movement is; whether it rests on any scientific basis, and whither it is leading us.

First, as to what it is. Dr. Worcester says it is a work of mental healing by clergymen in behalf of nervous sufferers. It attempts to relieve those nervous maladies which spring from moral causes, and which have an influence on the character and personality. It proposes no new dogma and discards no medical methods. Its founders would exhaust the possibilities of diagnosis, use all known methods of physical cure, while giving the spiritual help and sustenance which sufferers now seek outside the church in irrational doctrines and strange cults. Its weapons are faith and prayer on the religious side, hope, counsel, suggestion, habit-training, and re-education on the side of applied psychology. These are such means as act only through the mind. They can be effectual in removing and suppressing only such symptoms as are caused by the action of the mind. To repeat; it attempts to relieve those maladies which spring from moral causes. Obviously, then, if no sickness or suffering, such as we are called upon to treat, arises from moral causes, that is to say from causes acting through the moral life, or through the intellect, and more especially through the emotions generally, there is no basis for this or any other attempt at mental healing. If, on the other hand, some so-called diseases spring from the mental life, such diseases should be attacked on the mental side; and the only questions remaining are, "What diseases are so caused?" and "Should they be treated by the doctor or by the priest, or by both?"

Physicians have been, and still are, inclined to look askance

when anyone mentions causes for diseases other than germs, toxins, poisons, traumatism, irritation, inflammation, and such factors grossly and evidently physical. They will not have causes that cannot be seen, weighed, handled and tested. They do not believe in strictly functional disease, and assert that every change in function corresponds to a cellular change that is no less real because we have not discovered it. This skepticism is robust and healthy, and no one who is without it is on safe ground in attempting mental healing. But we should remember also that the brain is the organ which receives stimuli and transmits them into activity elsewhere in the body, and this activity will be biologically successful or not according to the accuracy and correctness of the brain's method of work. Who has not seen a child puzzle himself into a headache over a problem in fractions because he did not know the method of solution? We do not doubt that cellular changes accompany that puzzling and headache, but we must also believe that the cause was a stimulus acting on the mind, and that this headache will not recur in the future if that child either avoids problems in fractions, or if he learns the method of solving them, so that he can apply it with ease and accuracy.

In this simple example of everyday experience, we have the analogue of many complaints which come just as that headache came, and which should be treated on the same principle of finding the cause and removing it. The limitations of drugs are the same as in the headache over fractions. Rational psychotherapy consists in supplying to the mind methods of meeting or avoiding its problems.

Let us see what are some of the complaints which are known to have mental causes.

First.—*Hysteria*. It is time, in view of present knowledge, that every physician should thoroughly purge his mind of the idea, which is more or less absorbed by all, that hysteria is in some way caused by the reproductive organs. It is instead a type of disordered mental action, and perhaps the best understood type. In hysteria the memories and emotions connected with some shock, injury, or emotional crisis become separated or lost from the general body of memories,—dissociated, disaggregated, subconscious, as you may prefer to call them,—and thus dissociated take on a sort of autonomy of their own and interrupt the usual stream of thought by hysteric episodes. The levels of automatic brain activity may be said to become

temporarily uppermost in hysteria. This peculiarity appears in another form, in the suggestibility of hysteric patients which permits them to experience whatever symptoms are suggested to them. Accordingly, the hysteric may be said to be cured when the dissociated ideas are brought to full consciousness and when the abnormal suggestibility disappears. This may, to be sure, occur spontaneously during a course of medical treatment which improves the general physical health; but it may also be helped by appropriate psychological means, and it may be, and often is, retarded by unfortunate suggestions thrown out unwittingly by the family or friends, or the physician who is off his guard.

Second.—*Neurasthenia*. Dr. Morton Prince thinks that the neurasthenic complex is a sure mark of dissociation, and that it is a variety of hysteric manifestation. He has presented hysteric cases in which in a single patient with the same body and nerves and blood a severe fatigue complex passes over instantly, experimentally or spontaneously to a state of bodily vigor. Many others have had the same experience, but he has especially insisted upon this phase. Without going quite so far, every physician whose attention is drawn to the point will observe that these neurasthenic patients are not so much worn-out by the unusual amount of their labors as by disappointment, discontent, sense of failure, uncongenial work, and the lack of a suitable outlet for their energies. These matters must receive attention if we are to do the best for our patients; a way through or around them must be found by the patients themselves, or by their advisers, if the cures apparently wrought by rest, change and medicine are to be permanent.

At this point let us pause to consider the work of students of associations,—Freud, Jung, and their followers. They find, and any investigator for himself can readily find, that the time required for simple association is increased whenever any sensitive emotion is touched. If the point is an especially tender one, the association is blocked entirely, and in tests consisting of a series of associations, the blocking continues in part for some time after and interferes with subsequent reactions. In this there is a simple illustration of a principle of great importance in psychopathology—the blocking or inhibition of thought by unpleasant emotions. It is this internal friction, so to speak, which exhausts the neurasthenic, and which brings on a sense of exhaustion as soon as he even contemplates the work. In rela-

tively sound minds such blockings are overcome by the removal of their causes, if possible, or by new interests and enthusiasms which are strong enough to sweep past the internal obstruction, and establish again a free play of thought and activity. In such states of inhibition the religious motive has undoubtedly a sphere of great usefulness for persons who can use it.

We have reason to believe that some blockings of thought have a great deal to do, not only with conditions of simple nervousness and exhaustion, but also with the development of some of the insanities, notably dementia praecox. It is, however, more difficult to trace them here, and the facts are less satisfactorily established.

Third.—*Depression and Nervous Instability.* Common experience shows how closely depressions and insomnia are associated with trouble; how fixed ideas often date back to emotional experiences, and are perhaps hysteric in origin. Oversensibility, poor self-control, emotional instability, vague complaints that go under the name of "nervousness" have particular causes and can many times be traced to experiences in the emotional life which the patients truly say have made them nervous. These are experiences that have not been well-handled mentally, so to speak, and have left continual perturbation in their wake. Perhaps what are called substitutive reactions have developed, when innocent common objects, colors, etc., that have been associated with former unpleasant experiences serve continually to bring back the accompanying distress.

Fourth.—Because the disease appears at first glance physical one cannot be sure that it does not arise in the mind. Paralyzes, contractures, vomiting, and tumors in hysteria have their origin in the patient's thought and have characteristics of their own which distinguish them from organic disease. Habit spasms rise in the mind; stuttering is, often at least, due to mental causes; pains of all sorts in nervous persons are likely to be the expression of the memories of old trouble or simple substitutive reactions.

Finally, the mental origin of some so-called nervous symptoms is shown by the power of ideas to remove them. It matters not how irrational a doctrine if it arouses the emotions sufficiently, if it inspires a sufficient faith, it can and does remove inhibitions, set free activities, and liberate the body from pains. The Emmanuel Movement aims to preserve to the Church the virtue of this faith while applying the resources of

modern rational psychology, some of whose lines of development have been indicated above. There is no doubt a work to be done here. Clergymen are the natural advisers of many good people, and it is certainly desirable that they should understand some of the medical bearings of these psychological questions, that they may advise more wisely. In their pastoral sphere, and working with the physician, something as the Roman Catholic priests have always done, but also in the light of so much mental science as they are able to assimilate, they will be able to reach patients with motives beyond the doctor's reach. On the other hand, anything of the nature of clinics for the sick as such must be of very limited success with other than clergymen of unusual energy and ability. If undertaken at all, it must be under close medical supervision. Clergymen with their metaphysical notions of what the mind is are likely to do nothing but mischief to their patients and to their Church by dabbling in mental healing in an amateurish way. The evolution of specialism long since carried the treatment of the sick out of the hands of the clergy as a class.

But psychotherapeutics are of great use to many sufferers. Such a part as is educational and preventive must be partially practiced by the teacher and the minister; but when it comes to treating those actually sick, psychotherapeutic measures are on much safer ground in the hands of the doctor. It has been estimated that two-fifths of the patients presenting themselves for treatment have functional neuroses with or without organic disease. The field is large enough and important enough to claim the earnest attention of every physician. To this end we append a bibliography to some accessible sources of information.

DuBois.—The Psychic Treatment of Nervous Disorders.

Janet.—The Major Symptoms of Hysteria.

Janet.—The Mental Status of Hystericals.

Prince.—The Dissociation of a Personality.

Schofield.—The Management of a Nerve Patient.

Worcester, McComb and Coriat.—Religion and Medicine.

Jastrow.—The Subconscious.

Sidis and Goodhart.—Multiple Personality.

James.—The Energies of Men.

The Journal of Abnormal Psychology.

STUDIES IN MATERIA MEDICA.

BY

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ANIMAL KINGDOM.

It is a well known fact that drugs may increase, decrease, pervert or destroy function. It may be said in further amplification of this thought, though only in a general collective way, that *vegetable drugs* tend to increase functional activity, to produce fevers by producing vascular excitement, to produce diarrhoeas and other discharges by over functional excitement of the bodily secretions, to produce anxiety and noisy mania by over-exciting the mind. That the *mineral drugs* decrease function by their power to produce vital depression to the point of paralyzing organic life. So it can as truthfully be said, that *animal drugs* pervert functional activity in the largest sense, quickly causing mental and physical perversions. Mental emotions of the most loathsome, disgusting and horrible sort, accompanied by degenerative changes in blood and tissue to the point of decomposition. The most active agents of these three classes of drugs threaten life in poisonous doses. The *vegetable* through violent functional excitement, over-nutrition. The *animal* through equally rapid disorganization and the *mineral* by slow, profound, distinctive changes wrought upon vital organs, through the vegetative nerve centers.

So the *vegetable drugs* may be said to be suited to acute conditions of over-nutrition with tendency to quick resolution.

The *animal drugs* to acute conditions of perverted nutrition with tendency to quick destruction.

The *mineral* to chronic conditions of under-nutrition, where tendency is downward and deathward.

So the *animal drugs* may be said to stand between the vegetable and mineral drugs pathologically, and to be suited to pathological states, not perfectly covered by either of the other two. All of these drugs of animal origin produce depressed, depraved and disgusting mental states, emotions and impulses—all the way from disgusting obscenity to homicidal manias. All exert a destructive influence upon the blood composition, with separation of its elements, oozing of its watery part into

the tissues, explaining the dropsies, low grades of inflammations and gangrene exhibited throughout their pathogeneses. We find under the *snake poisons* the oedemas, destructive inflammations, and gangrenes.

Under the *spider poisons* similar states; under the insects as *apis mellifica* and *cantharis*, oedemas, vesicular skin troubles and inflammations of the urinary tract; under the *animal secretions* we find distressing mental states, discolored tissues from blood decomposition, hysterical symptoms and chorea. Under the *animal nosodes* we find conditions of great vital depression, with suppurative diseases of a destructive nature—and excoriating secretions. The more minute differences, however, can best be understood after minute individual study.

SNAKE POISONS.

LACHESIS TRIGONOCEPHALUS.

The virus of this intensely poisonous South American viper was introduced into the Homœopathic Materia Medica by the late Dr. Hering. Its position as a drug is unique and important in the highest degree. Its careful study will richly repay the student not only because of its extended clinical usefulness, but also because it is the grand animal polychrest, occupying the same position in the animal kingdom that aconite does in the vegetable, and sulphur in the mineral.

Not only does it seem well to make it a standard of comparison for the other animal drugs, but its action all along the line is fairly typical of that of all of the animal secretions, which it may be worth his while to study.

General Analysis.—The action of the lachesis poison upon the body, may be conveniently divided into local and general. The reptile, like all of the ophidians, is supplied with a perfect hypodermic syringe in the shape of a hollow, pointed fang, reinforced with a muscular bag containing the virus.

General Effects.—A few seconds after the poison is injected the blood throughout the body is infected, its elements separate, the solid portions remaining in the vessels, dark and grumous, presenting the appearance of charred straw, the serum oozing into the tissues, causing general oedema, and there are collapse symptoms from shock and venous stasis.

Local Effects.—If the poison is not immediately fatal, the

wound turns purple, becomes gangrenous, and the tissues disintegrate, and there is black, offensive oozing.

Taken internally the poison acts less violently, there are obtained mental and nervous symptoms, which distinguish its individuality.

Mentally there is first excitement and loquacity, followed by muttering delirium with illusions of a frightful variety, the patient being in constant dread. "He thinks the nurse is trying to poison him, so refuses the proffered medicine"—he is suspicious; in milder cases he is jealous, or he thinks himself under superhuman control. These mental symptoms are most often useful in the treatment of adynamic diseases.

The most pronounced nervous symptom pervading the whole pathogenesis of the drug is a *cutaneous hyperaesthesia*, an intolerance of touch or pressure. So in tonsillitis the patient will not suffer a cloth around his neck, he even refuses to allow his collar to be buttoned. In abdominal or pelvic diseases, the pressure of the waistband or of the bed clothing is intolerable.

Where there are local inflammations as erysipelas, boils or carbuncles, dressings are the source of great discomfort. This symptom should be distinguished from the *arnica* and *belladonna* intolerance of pressure—arising in the one case from the natural hyperaesthesia following trauma, and in the other from the equally natural hyperaesthesia of acute inflammation. The lachesis hyperaesthesia is purely a nervous symptom, a cutaneous hyperaesthesia and the sensitive parts are worse from gentle pressure than from deep pressure. I have taken pains to make this careful distinction because it is the most constant characteristic of lachesis, and must be understood before intelligent differentiation can be made from *arnica*, *belladonna*, and other analogues in inflammations.

Another thought which has not heretofore been sufficiently dwelt upon is the relief of *lachesis* symptoms by discharges, and their aggravation from suppression. So the throbbing headache, nasal catarrh, are better after a profuse watery discharge; and the ovarian pains are better after uterine discharges. Asthmatic paroxysms coming on waking and relieved by profuse watery expectoration.

It is well suited to the hot flushes, congestive headaches and nervous symptoms coming on at the climacteric, and during pregnancy at the time that the menstrual epoch should appear.

Another pivotal symptom appearing as a signboard almost

universally—"Aggravation after sleep," may be partly explained, especially in respiratory diseases, by the fact that during the inertia of sleep, secretions accumulate instead of being thrown off.

There is in general diseases a paralytic muscular weakness; the tongue trembles when protruded. Add to the above analysis, three other pivotal symptoms and the drug picture is complete, one that its diseases are *left sided*, another a *constant tendency* to spasm of the glottis, and lastly that all secretions are *very offensive*.

Its clinical study is made easy by a division of general and local symptoms.

General Diseases: Typhoid Fever and Typhoid States.—Loquacity, patient jumps from subject to subject. Later there is low muttering delirium, a delirium attended throughout with dread and suspicion, fear of poison, of injury, of mastery by another's will, thinks himself dead. Tympanitis with intolerance of the weight of bed clothes, watery offensive diarrhoea, with constant urging, from an irritable sphincter, rectal throbbing. Great prostration, hippocratic face, offensive sweat, petechial spots over the surface of the body. Tongue dry, red, cracked, protruded with difficulty or catches in the teeth; dark offensive hemorrhages, looking like charred straw, from bowels, nose or uterus; bed-sores, worse after sleep.

Analogues: See Bryonia.

YELLOW FEVER.—Dr. Wm. H. Holcombe, the great nestor of Southern Homœopathy, advised *lachesis* for the first stage with symptoms of nerve poisoning, and *crotalus horridus*, another ophidian, for the second stage, the stage of blood poisoning, showing itself by exhausting jaundice, hemorrhages including the black vomit. In this stage there may be oozing of blood from the skin which is an additional indication for *crotalus*.

Crotalus has even more characteristically blood decomposition, disintegration and infiltration, and the jaundice is from that cause.

Here there are also petechial and great puffiness of the body from oedema. This was an indispensable drug in the epidemic of 1878 in the Southern United States.

Arsenicum may be indicated in this stage, by its well known symptoms; the rapid prostration, irritable weakness, black vomit, exhausting diarrhoea and other well known symptoms.

Other analogues are:

First Stage: Aconite, arnica, bryonia.

Second Stage: Merc. Cor., hyoscyamus, secale.

Third Stage: Digitalis, phosphoric acid, sulphuric acid, china, baptisia.

Collapse: Carbo vegetabilis, veratrum album, arsenicum, lachesis, croctalus.

Puerperal Metritis: Lachesis may be indicated in this disease by the symptoms given under *Typhoid States*. The lochia is foetid, and the uterine pain is relieved temporarily by an offensive liquid "charred straw" hemorrhage.

Analogues: Secale Cornutum. Thin, scrawny women with sunken eyes, dark grumous hemorrhages, cold sweat, tendency to gangrene, suppressed urine, unconsciousness.

Baptisia: Septicaemia, with typhoid symptoms, tympanitis, watery, offensive diarrhoea, besotted face.

Arsenicum: Rapid exhaustion, irritable weakness, gastric and intestinal irritability, thirst, mental and physical distress.

Kreosotum: Very offensive lochia, alternately ceasing and returning, putrid vomiting, flatulent distention.

Terebinthina: Tendency to mortification, horrible burning in uterus, brown dry tongue, abdomen distended and sensitive to touch, cloudy urine. Compare also carbo veg., veratrum album, arsenicum iodatum, rhus toxicodendran, bryonia, muriatic and phosphoric acid.

Diphtheria: Indicated more by constitutional than by local symptoms, malignant cases with asthenic symptoms from the start, intense pain with minimum local manifestations, intolerance of throat to touch or contact, spasmus glottidis, left side most affected, better after expectoration, worse after sleep, trembling paretic tongue, which is dry and brown; weak, rapid pulse.

Analogues: Mercurius cyanide, baptisia, arsenicum, the mercuries, the kalis, the Halogens, see: mercurius.

Lung Diseases: Pneumonia, phthisis and asthma with asthenic symptoms from the start. Left side most affected, worse after sleep, better after expectoration, spasmus glottidis, venous, watery, non-coagulated hemorrhages. Sensorial excitement and hallucinations of fear, suspicion and distrust.

Analogues: Pneumonia; see: bryonia.

Phthisis; see: phosphorus.

Asthma; see: arsenicum.

Scarlet Fever. Malignant cases, asthenic from the start with sensorial excitement or in the latter stages with the well-known *lachesis* typhoid symptoms, threatening gangrene, destructive decomposition of blood and tissue, dry, cracked, trembling, parietic tongue, diphtheroid deposit on left tonsil, partial paralysis of muscles of deglutition, liquids return through the nose, offensive discharges, passive hemorrhages, intolerance of touch or contact, *worse after sleep, better* after expectoration.

Analogues: See belladonna.

LOCAL DISEASES.

Erysipelas, worse on left side, all inflammations purple in color. (Red, belladonna.) (Pink, apis.) Asthenia, great systemic prostration, intolerance of touch or pressure, from hand or clothing, with cerebral symptoms like those of belladonna; cold extremities.

Analogues: *Apis, belladonna, arsenicum, sulphur, bryonia, rhus tox.* See: belladonna.

Boils and Carbuncles or Abscesses. Large purple and oedematous with gangrenous symptoms. Breaking down and disintegration of tissue, local and general hyperæsthesia, asthenic constitutional symptoms, even to blood poisoning, discharge of purple liquid blood. In sloughing carbuncles, with extreme prostration and severe pain, *tarentula cubensis* is preferable.

HEMORRHAGES of purple or black liquid blood, very offensive, may look upon *settling* like "charred straw"; hemorrhages from nose, mouth, anus or uterus, with asthenic diseases or idiopathic.

The character of the hemorrhage being the principal indication.

Gangrene after injuries, or associated with a depraved state of the system. Decomposing blood, bluish or black blisters, intense itching and burning, swelling and inflammation, tingling heat and numbness of the parts, or they may be cold and bathed in cold sweat. Fever, dry, brown tongue, which trembles or catches in the teeth when protruded.

Analogues: *Crotalus*, similar symptoms with oozing of black blood from the affected parts, and adjacent oedema more marked; still greater prostration.

Secale Cornutum: *Dry Gangrene.* Senile gangrene; thin,

scrawny subjects, extremities especially affected. Affected parts hard and dry, limbs black, cold, shrivelled, insensible.

Arnica; after contusion; hard, hot shining swelling, thirst, ecchymosis very great, petechial over the body, bed feels too hard, patients shrink from touch or contact. Prostration, muttering delirium.

Arsenicum: Exhaustion and diarrhoea, well known arsenicum symptoms, restlessness, thirst, etc. Swelling, heat, burning pains, relieved by heat. Alternating heat and coldness.

Aurum Metallicum: Gangrene of bone; necrosis, with induration of soft parts, suicidal mania.

Mercurius Vivus: Gangrene of lips, cheeks, and gums, or gangrenous swellings of lymphatic glands.

Sulphur: Bed sores with gnawing pains, putrid ulcers with indurated edges, sloughing phagadema. Compare also by general symptoms: *Carbo veg.*, *nitric acid*, *mezerium*, *muriatic acid*, *mercurius corrosivus*.

Tonsillitis: Asthenic tonsillitis, membrane-like deposit on left tonsil, lump in left side of throat, constriction of throat, dyspnoea, worse after sleep, better after expectoration. Empty swallowing is painful; fluids return through the nose after swallowing, intolerance of external contact, purplish color to inflamed parts, at the beginning of left sided tonsillitis—(right sided, *belladonna*).

Analogues: See: *belladonna*.

Ovarian Symptoms: Pain in left ovary, relieved by menstrual flow, intolerance of contact, menses scanty, black and offensive.

Prosopalgia: Left supra orbital neuralgia, generally an accompaniment of a cold and is relieved when the nasal discharge is established. Headache in vertex during climacteric.

Analogues: See: *Nux vomica*.

RECAPITULATION OF CHARACTERISTICS.

General Effects. Blood decomposition and separation of its elements, producing oedemas, petechial spots, dark liquid hemorrhages, looking after settling like "charred straw." Making it suitable to low grades of inflammation, with gangrenous symptoms. Sensorial excitement with loquacity, followed by muttering delirium, with hallucinations pointing to suspicion, **distrust and dread**, or "he thinks he is dead." This being accompanied by great physical exhaustion, muscular tremor and

weakness, blood stasis and blood and tissue disorganization point to low forms of fever, with typhoid or septic symptoms, and to malignant exanthems.

Characteristics :

- A.—An aggravation of all symptoms after sleep.
- B.—Nervous hyperæsthesia, shown by intolerance of touch or contact.
- C.—All painful symptoms are better after discharges, critical or otherwise; head, nose, ovary, uterus, lungs.
- D.—Left sided diseases.
- E.—Tongue trembles when protruded; (apis).
- F.—Mental symptoms pointing to dread, fear, suspicion.
- G.—Spasmus glottidis.
- H.—Pains are burning, (the pain of tissue destruction) .
- I.—Craves oysters.
- J.—All discharges fœtid.

THE SPIDERS.

The virus of these insects produces effects very much like those caused by snake-bites, varying somewhat in degree. This similarity may partly explain their limited Homœopathic use. They produce the same tendency to blood disorganization and physical prostration. In addition they produce increased venous and spasmodic symptoms, rendering them more useful in chorea and hysteria. Their pathogenesis also shows a periodical tendency. They can be dismissed in a few words.

Tarantula Hyspana: Lachesis symptoms with spasmodic or hysterical symptoms more marked. She is very excitable and restless. Music causes crazy actions. Hysterical symptoms are worse when she is observed.

Tarantula Cubensis: Carbuncles, see: lachesis.

Mygale Gadora: Choreia, facial twitchings, irregular convulsive movements, unilateral, patient better during sleep but worse after awaking.

Theridion: Left supra-orbital headache, see: lachesis. Phthisis Florida, with stitch pains through to the back, and into left chest; cardiac anxiety. Compare *aranea diadema*, *pix liquida*, *myrtus communis*.

Aranea Diadema: Hydrogenoid constitution; also *thuja occidentalis*, *natrum sulphuricum*.

ANIMAL NOSODES.

Psorinum.

Hydrophobinum.

Syphilinum.

Tuberculinum.

Medorrhinum.

Anthracinum.

Vaccinum.

With the exception of psorinum, which is quite thoroughly studied in this work, it may be stated as a general rule, that these animal nosodes, which are diseased animal products, are given for the diseases themselves. This is really Isopathy. When given, nosodes should universally be used in the higher potencies, as aggravation from the lower potencies are frequent. Vaccinum is used as a substitute for vaccination, with still unsettled result.

Animal Extracts.

These drugs are used in the treatment of nervous and hysterical diseases; with tendency to sexual excitement. They also show tendency to systemic depravity and mental depression. There is also a tendency to skin discoloration from blood decomposition. The chief agent of this class is *sepia succus*, and the exhaustive study of this drug is fairly typical of the others of its class.

Murex, see: *Sepia*.

Spongia Tosta: Principal use, spasmodic coughs. See: *Halogens*.

Moschus: *Hysteria*, See:

Ambra Grisea: *Hysteria*, See:

(*To be continued.*)

THE MODERN CONCEPTIONS OF HYSTERIA.

BY

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(Continued from the February Number.)

THE following cases are reported because of their interesting nature and in order to confirm some of the statements already made:

CASE 1.—*Unilateral hysteric amaurosis following the use of the Wolff-Eisner test.* Miss X, aet. 23, gave a distinct history of neuropathic heredity. Following a number of severe mental shocks she developed hysteric manifestations such as rudimentary "stigmata," attacks of crying, syncope and atypical convulsions. These evidences of hysteria, as well as many others less important to us but just as distressing to her, disappeared succeeding the therapeutic use of hypnotism. October 12, 1908, a drop of tuberculin solution was placed in her right eye, for diagnostic purposes, and one of saline solution, as a control, in her left eye. The next day, though both eyes appeared to be normal, the patient complained of a feeling of irritation in the left eye associated with homolateral impairment of vision. She was then told that the tuberculin solution had been instilled only in the right eye. Amaurosis affecting vision with the right eye was present when she awakened the following day. October 15 I met her socially and circumstances were such that experimental study of this condition and the use of hypnotism were out of the question. Knowing the patient well and having her confidence I adopted the only therapeutic resource that was capable of being employed at the time. Accordingly the psychic nature of this symptom and the mechanism of its genesis were explained at length to her (psychic re-education) and she was assured that it would disappear in the course of a few days. The use of this method of treatment was sustained by the complete disappearance, on October 19, of her visual disturbance. It may be interesting to some to know that this patient, though not particularly interested in supernormal psychic phenomena, asserted that telepathy and telæsthesia in the form of clairvoyance and clairsaudience had occurred a number of times with her. Several of these experi-

ences were investigated and while sufficient evidence was adduced to render them impressive, its character is such that they are not acceptable from a purely scientific point of view.

CASE 2.—*Hysteric convulsions—recurrent attacks of deafness, mutism and paralysis with development of bilateral hysteric amaurosis following prolonged perimetric examination.* Mabel A. (Disp.) aet. 12, presented such a variety of uncommon "accidents" that her case warrants a more complete report. Well marked neuropathic hereditary influences were discovered; the father having been an epileptic and a chronic alcoholic and his aunt and uncle had been insane. The patient had a convulsion, following measles, when three years of age. When nine years old (1905) there appeared paraplegia which lasted for a few hours and was followed by complete recovery. From that time she remained well until July, 1908, when she complained for a few days of numbness in her left upper extremity.

One week later after a brief period of general numbness she lost consciousness for a space of two hours. This was followed by severe headache and vomiting. The next day, after an aura of general numbness, she fell unconscious and for one-half hour had general tonic and clonic spasms succeeded by a maniacal period, lasting about one hour, in which she scratched and fought with those around her and tore up the bedclothes.

During the period intervening between July, 1908, and September 13, 1908, at which time her history was taken, she had five more diurnal attacks similar to the second and three nocturnal ones. Projectile vomiting occurred during two of these attacks. Sudden loss of the ability to speak appeared September 10, 1908, followed in one hour by total psychic deafness. Speech and the consciousness of hearing returned September 14 and she remained well until September 22, when, while on her way home from school (3.30 P. M.), mutism and deafness again developed, after an aura consisting of a peculiar sensation as if there was a hair in her throat, and persisted until 8 A. M. the following day. Every day until September 29, there recurred attacks of deafmutism exactly resembling the second one. With the exception of the initial fright her various manifestations, ones which we would expect to alarm greatly a patient, actually, as is often the case in hysterics, caused her little concern outside of their inconvenience. This patient, a very intelligent little girl and quite a favorite, has always been emotional and restless. The first physical examination determined

a marked concentric contraction of her visual fields. The Eye Department reported the results of ophthalmoscopic examination as negative. The patellar reflexes were absent; but during later examination though much diminished they were found to be present. At the time of the first hurried examination, the only one made during any of her various attacks, the consciousness of air and bone conduction was tested for and found to be **absent.**

Despite her reluctance she was hypnotized, for the first time, October 3 and appropriate therapeutic suggestions were made. At this time, and after the first few subsequent treatments, she persisted in the affirmation that she hadn't been hypnotized but had been "wide awake" the whole time. Improvement immediately commenced in spite of this belief and when next observed (October 3) her attacks of deaf-mutism, though still occurring for only one hour each day, were reported to have been frequently interrupted by the intermittent return of speech and hearing. Her condition was stated to be about the same on October 13, except that her attacks were accompanied by complete bilateral amaurosis. This new condition appeared October 11, following a violent headache, and greatly alarmed her at first. During an interval in which she said her vision was normal its acuity was found to be OU 3-30 though it had been OS 10-10 and OD 10-15 when tested on October 3.

From October 13 to October 27 there occurred only two attacks of amblyopia which lasted for several minutes instead of an hour or two. During this period her hearing and speech had remained normal, but October 20 she complained, for two days, of paralysis of the left upper extremity. On October 24 there appeared almost complete left hemiplegia, lasting two days, associated with dyspnoea.

About November 13 paralysis of the left arm recurred and persisted for about 24 hours.

November 22 she refused food because the act of swallowing caused a feeling of suffocation.

She denied knowledge of the origin of this symptom but it was discovered, upon questioning her during hypnosis, that she inferred that it was the result of fear arising from her first experience with the sensation of globus hystericus.

On two occasions in the latter part of December she dreamed that two men had entered her room and were going to stab her and cut off her hair. The window was found open the third

morning and her hair, cut off about six inches from the scalp, discovered on the floor. She stated that she didn't know who had cut off her hair but thought it must have been done by some one who had entered through the open window during the night. When questioned while in the hypnotic state she admitted, without any hesitation, having cut off her own hair because she didn't like it so long and because she had not been allowed to have it cut off during the summer.

An interesting feature of this case was the development of complete bilateral amaurosis, twenty-seven days after perimetric examination, without any other probable cause having been ascertainable. The prolonged and repeated examinations with the perimeter, a quite adequate cause for the production of the symptom, so concentrated the attention of the patient upon her visual function that, following a not uncommonly extended period of auto-suggestion, amaurosis appeared. It was most unfortunate that she was not brought to the dispensary during one of the periods of amaurosis; for, if such had been the case, some very interesting hypnotic experiments could have been performed with the object of demonstrating the presence of subconscious vision. In case 1 the great importance, to her, of the results of the Wolff-Eisner test led Miss X to examine frequently her eyes, in fact, caused a constant state of expectant attention centered upon her eyes and vision. As all the possible accidents of hysteria are potential in a given case and require only an adequate exciting cause to render them actual, so in these two cases the two diagnostic tests were quite sufficient to determine the production of amaurosis.

Certainly a factor that is capable of acting as the exciting cause in one hysteric patient is of negligible etiologic importance in others; the induction of pathologic results or the innocuousness of the factor depending entirely upon the personal equation of the individual.

The subconscious fabrication, that occurred in Case 2, was also worthy of observation and study even though, superficially, it would seem to be but the "unaccountable vagary of an irresponsible hysteric." Having dreamed for two consecutive nights of having her hair cut off by two men was sufficiently suggestive to cause Mabel A. to cut off her own hair. Being in a somnambulistic state at the time she did not know, after waking in the morning, what had occurred. Consequently she drew upon her memories of the former dreams in order to explain

the condition. This brief explanation, based upon universally accepted theories, is justified by the recognized auto-suggestibility of hysterics; by the well known and profound power, possessed by dreams, of modifying the actions of even the normal individual; and by our knowledge of the controlling influence of memory complexes that remain below the level of consciousness. Attempts to explain the occurrence by hypotheses founded upon deliberate intentions of deception, unless otherwise justifiable by additional circumstances, would be indicative of deficient knowledge of normal and abnormal psychology upon the part of the one who advanced them.

Mabel's admission, during hypnosis, of what had actually taken place proved that she had not been lying previously. (It is well known that memories incapable of being recalled during the usual state of consciousness can be reproduced by means of hypnotic procedures. This is true even of thoughts and incidents that have happened during dreams, spontaneous somnambulism, febrile delirium,⁷⁵ states of dual personality,^{75 76} hysteric and perhaps epileptic convulsions,*⁷⁷ and previous hypnoses.)

Now if she had been deceiving she would not have confessed to it during hypnosis unless one is compelled to tell the truth while in the hypnotic condition. But if this be true and if she had not been truthful in her original statements then she could not have lied, during hypnosis, about her ignorance when in her usual state of consciousness of the course of events, other than the theory she had advanced. Therefore one is justified in concluding that she had no intention of deceiving and that she actually believed her own subconscious fabrication.^{8 9}

The therapeutic results of the employment of hypnotism in this case were most satisfactory; even though the underlying "hysteric temperament" cannot be said to have been cured certainly the prompt removal by psycho-therapeutic methods of such major accidents as convulsions, deafness, amaurosis, mutism, paralysis, and dysphagia † argues favorably for the use of this method of treatment in hysteria. The patient was hypnotized only six times.

*See case 3.

†Hysteric anorexia, dependent upon fixed ideas, is one of the most dangerous and fatal of the accidents of hysteria. (Janet 78, Hammond 79, etc.)

In this case, contrary to my experience in a few others, nocturnal enuresis was not cured but the condition improved to an extent that was most pleasing to her mother by adoption.

CASE 3.—(Hah. Disp.) *Experiments performed upon a case of fracture of the second cervical vertebra,* with associated hysteria, in order to demonstrate the psychic nature of hysterical concentric contraction of the visual fields.* This patient had suffered from major and minor epileptiform attacks following an accident that had resulted in a large depressed fracture of the occiput, in addition to the fractured vertebra. As so frequently occurs, the organic conditions resulting from the traumatic lesions became complicated by associated hysteria.

December 15, 1908, he was personally observed, for the first time, during the onset and course of one of his major attacks. While being examined with the perimeter he asked to be allowed to rest his eyes for a moment. His face then became pale and expressionless and, becoming unconscious, he commenced to slide off the chair. After being lowered to the floor severe tonic and slight clonic general spasms appeared, followed by cyanosis and associated with almost continuous opisthotonos; interrupted once by emprostotonos of short duration. This attack lasted about two minutes and, without any interval of consciousness, was immediately followed by another. He was then put to bed in Hahnemann Hospital and between 3 and 4.15 P. M., seven convulsions occurred. While semi-conscious, between two of these attacks, he showed a tendency to resist gentle efforts to retain him in bed. At another time he tore off a dressing that had been applied to his clavicle. Without having any post convulsive stupor he left the hospital at 4.15 P. M. When seen again (December 21) he was asked who had removed the dressing from his clavicle. He replied that he did not know. Being asked the same question, while under hypnosis, he stated that he had done so himself because the dressing irritated him. This suggests an interesting question. Are the actions of the patient and incidents that have occurred during epileptic unconsciousness subject to recollection by the patient when in the hypnotic state? This question, now that it has arisen, I hope to be able to answer with the aid of future experimentation upon suitable cases. The differential diagnosis,

*"Late Report of a Case of Fracture and Dislocation of the Second Cervical Vertebra," by Chas. D. Fox, *N. Y. Med. Jour.*, Dec. 5, 1908, page 1081.

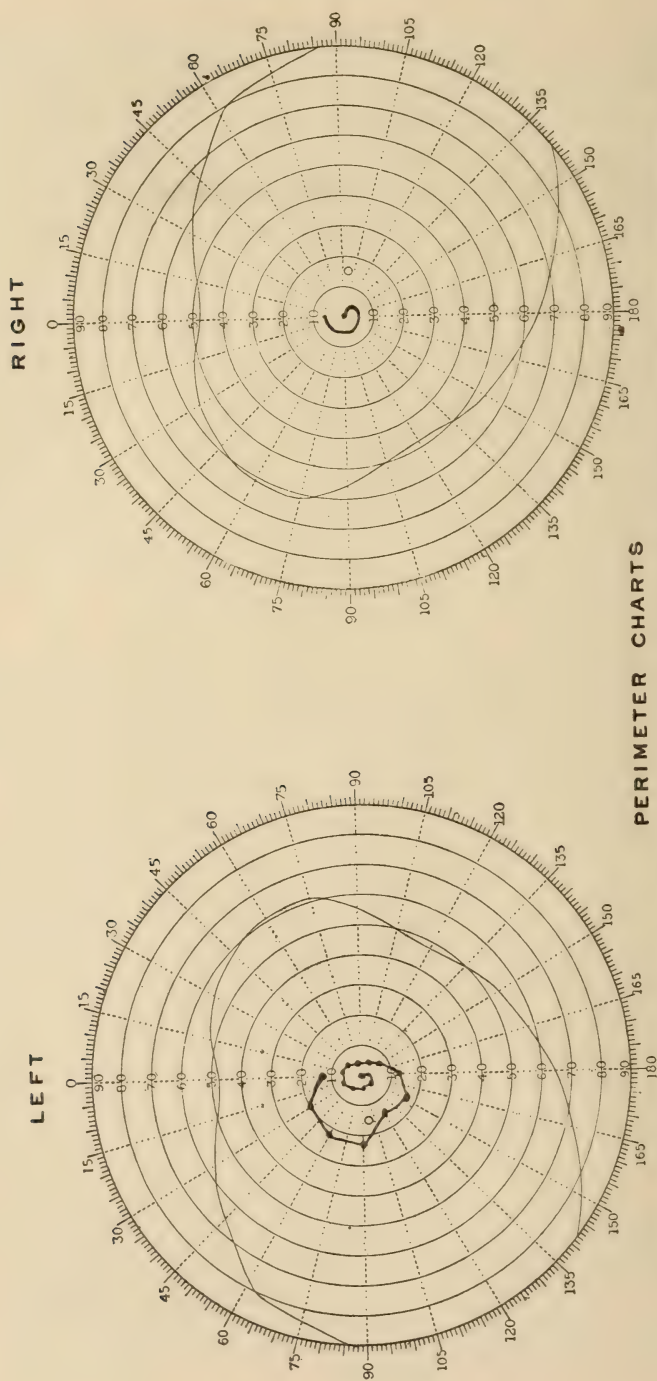
in this case, between organic epilepsy and hysteric convulsions is a matter of conjecture. The general character of the convulsions; their persistence in spite of former hypnotic treatment; * and the presence of an adequate cause, the depressed fracture, would certainly indicate epilepsy. But the occurrence of a series of these convulsions without succeeding stupor or other distressing consequences, together with the known hysteric element, render the above diagnosis uncertain.

During and immediately following an attack of meningitis (February, 1908), there appeared indisputable organic paresis of all the internal and external ocular muscles. After subsidence of the organic cause, the recently developed hysteric element induces a reappearance of these manifestations whenever his attention is attracted to his eyes. Each time his external ocular muscles were tested, by means of fixation on the moving finger of the examiner, it was noticed that the total movement of conscious rotation of the eyes in any direction was not more than $\frac{1}{4}$ inch, and that marked ptosis was present.

That the former organic ophthalmoparesis has persisted as a purely hysteric manifestation, the result of conscious attention and unconscious auto-suggestion, is made manifest by the total disappearance of this weakness of the ocular muscles when the patient's attention is withdrawn from his eyes.

It was further noticed that his actions were not impeded, as one would expect, by the presence of what was supposed at first to be organic gun barrel vision. Consequently, after taking his visual fields and charting the enormous amount of concentric contraction present, its character was determined by means of the following experiment: Having the patient close one eye and fix the other on the examiner's finger, an object was held well out in the blind portion of his field. Being asked *what the object was* he replied each time that he could not see it. He was immediately hypnotized, after each of these tests, and asked

*Out of the many cases of incontestable hysteric convulsions treated by me with hypnotism, I cannot recall a single case in which the convulsions did not disappear promptly after the institution of this method of treatment. There undoubtedly are cases that are uninfluenced by hypnotic procedures; but, in a case in which the diagnosis was doubtful, the failure of suggestive therapeutics to prevent recurrence of the convulsions would certainly favor the diagnosis of epilepsy.



The eccentric continuous line indicates the average normal field of indirect vision: the small circle the position of the blind spot

CHART I

what was the object that he had seen. This was repeated four times; the objects used being a bottle, watch and lock, and once he was tested as to the number of fingers held in the blind field. He answered correctly three times out of four. This experiment proves conclusively that the present high grade concentric contraction of his visual fields is not organic and that it is purely psychic in nature. It indicates also that hysteric contracted fields, as exemplified by this case, are the consequence of failure of conscious perception, or lack of personal perception, of visual impressions originating in psychically amaurotic peripheral fields.

CASE 4.—(Hahnemann Disp.) *Case of "hystero-epilepsy" presenting allochiria. Results of experiments upon spiral visual fields.* The patient, Lizzie B., aet. 17, was well until July 23, 1908, when she had a convulsion and was taken to the Hahnemann Hospital. The following morning, after having been discharged, she had two more convulsions. During examination in the nervous department of the dispensary, in the afternoon of the same day, she had a fourth attack. Her seizures were preceded by an aura consisting of pain in the stomach which, after radiating up into the head, was immediately followed by loss of consciousness. Tonic and clonic convulsions occurred, associated with opisthotonos, but there was not any involuntary urination or defecation. Just before her attack in the dispensary she cried out: "There I go."

Among the positive findings that were elicited during the examination were greatly exaggerated patellar reflexes and infra-mammary and inguinal tenderness. Though her acuity of audition seemed to be normal she asserted that she could hear my watch only when it was in contact with either ear. Bone conduction was better than air conduction. Her acuity of perception of high notes, as tested with the Galton whistle, was slightly impaired. The perception of tactile stimuli was much delayed and imperfect. In addition she had defective tactual orientation. Tactile perceptions were referred by her to the corresponding part of the contralateral member (allochiria). On repeating these tests, after a short rest, she complained of not being able to feel the stimuli at all. Thus hysteric anaesthesia was created in this patient by an examination to determine its presence. However, by suggesting to her that she could feel and that she would signify her perception of each



CHART II

stimulus by saying "now" *just as soon as she felt it*,* the anaesthesia was caused to disappear. As she did not improve under medical treatment and as she had a fifth convulsion August 8, 1908, it was decided to resort to hypnotism. Accordingly she was hypnotized for the first time August 10, 1908, and appropriate suggestions were made.

During the same month she was hypnotized five more times, and then treatment was discontinued because she asserted that she felt perfectly well and had not had any convulsions, or other hysteric manifestations, since the first hypnotic treatment.

The patient returned February 1, 1909, and stated that she had remained perfectly well until the end of January, when, without any cause of which she was consciously aware, there occurred on four occasions an attack as follows: Sudden appearance of a feeling of general weakness, sensation as if a cloud appeared before her eyes, vertigo and falling to the ground. She positively asserted that she was not unconscious in any of these attacks, that these were the only symptoms and that they disappeared completely in a few minutes.

During hypnosis she stated that as a consequence of recent and repeated exposure she was worrying excessively about the possibility of becoming pregnant illegitimately. Furthermore, each of these new attacks had been immediately preceded by a period of worrying and fear. Here then by means of hypnotic psycho-analysis is revealed an adequate exciting cause (fear and worry) which, for obvious reasons, is not suitable for attempted removal by suggestion.

The appearance in this case of a new and comparatively mild form of seizure exemplifies the possibility of recurrence, after apparent recovery of the patient, of former hysteric accidents, or the genesis of new ones, providing the patient be subjected to an unusually severe or prolonged psychic trauma.

The visual fields of this patient, as examined July 30, by the rough finger test, were approximately normal; perimetric examination, however, resulted in the production of spiral fields of small amplitude (Chart 1). Moreover, as in Case 5, the spiral field of the second eye examined was smaller than that of the first.

*It is usually the custom, in examining for anæsthesia to tell the patient to say "now" *if* the stimulus is perceived. Because of the exaggerated suggestibility of these patients the "if" is sufficient to induce frequently anæsthesia that had no previous existence.

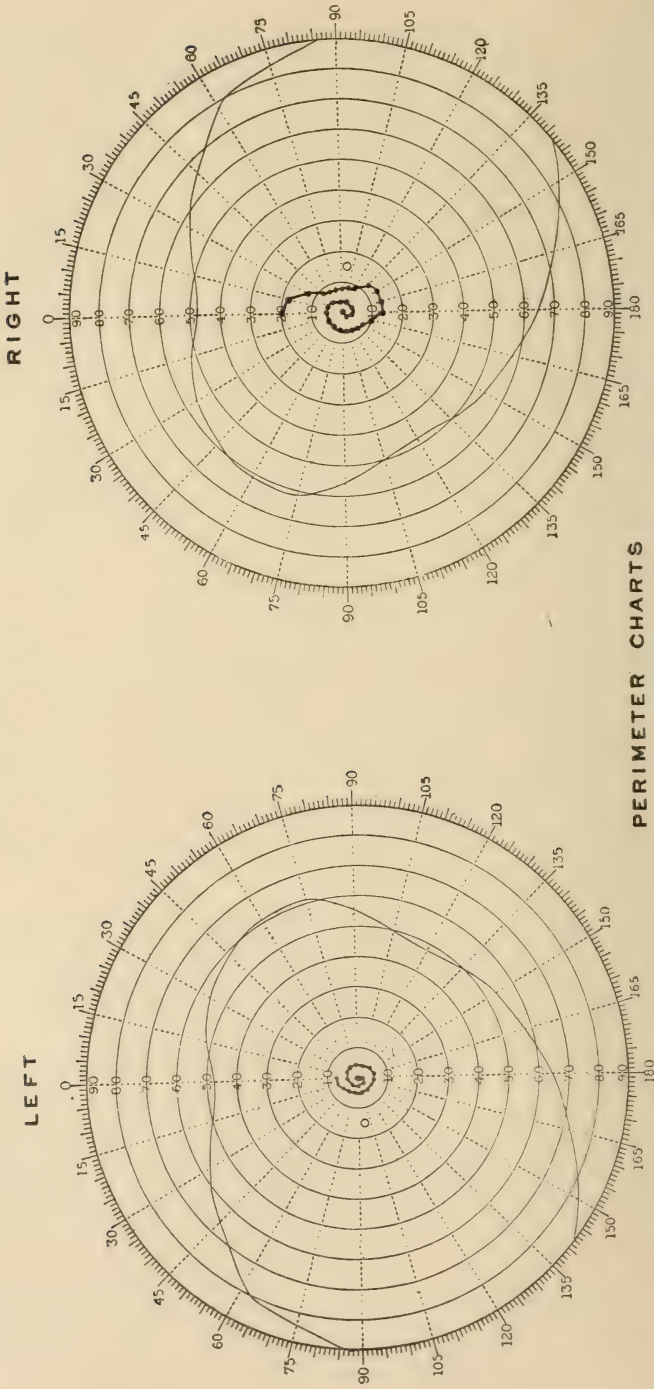


CHART III

The contraction, being so marked, could not possibly have escaped detection by the finger test; consequently it must have been caused by the perimetric examination *per se*, or appeared spontaneously and coincidentally in the short interval of time between the two examinations. This latter contingency can be eliminated because of the frequency with which the above sequence has occurred in my experience.

Re-examination during the same visit and on August 6 resulted in reduction of the field to a point.

February 1, 1909, she was again subjected to an examination with the perimeter. During the examination, in order to eliminate the possibility of verbal suggestion by the examiner, silence was observed. Commencing at 0 and progressing from the nasal field to the temporal field the tests were made 30° apart in order not to unduly prolong the examination.

After one complete circuit of the left eye she was allowed to rest for five minutes and then the right field was taken. Though hysteria is characterized by the opposite of abnormal readiness to the induction of fatigue, periods of rest were allowed at the end of each complete circuit in order to eliminate the possibility of the question of fatigue being raised as a cause of the spiral field that was elicited by examination of the left eye. (The inner field of Chart 2). To demonstrate by means of hypnosis, as in Case 3, subconscious perception of objects held in the amaurotic area she was asked *how many fingers she saw* when these were held in the perimeter at the normal limit of perception. The experiment being vitiated by her ability, without being in the hypnotic state, to count fingers at the peripheral termination of a number of different radii, she was given a brief explanation of peripheral vision and perimetric examinations. Furthermore, the inconsistency of the results in her case was demonstrated to her.

Now, upon repeating the examination, her fields were found to be practically normal in extent. (Outer field of Chart 2). Repeated tests, which were without definite sequence, verified the boundaries of these fields.

CASE 5.—(Hahnemann Dispensary). *Hysteric contracture following a trivial injury*. October 5, 1908, Florence K., aet. 17, was exposed to a kick which she thought had injured her little finger. Upon questioning her she was not positive that she had been actually struck. The little finger immediately became contracted into the palm and she complained of intense

pain without, however, there being any local evidence of injury. Her personal history, with the exception of the occurrence of attacks of syncope and ambulatory automatism (?), was negative. The attacks of syncope, occurring with almost every menstrual period, lasted about a half hour and were not accompanied by convulsions or movements of resistance. She stated that three or four times she had left her home for perhaps an hour, but after returning her mind would be a blank for what she had done while away from the house. When examined (October 6) the positive findings were as follows: Exaggerated patellar reflexes and presence of pseudo clonus, great inframammary and ovarian tenderness. The visual fields were spirally contracted to a point (Chart 3) yet it was plainly apparent that this condition was purely a result of suggestion and conscious attention because of absence of any effect upon her actions and gait. Another observation possessing the same significance was the fact that the spiral field of the second eye examined was smaller than the first one (the right).

Further evidences of the familiar inhibitory effect of conscious attention in hysteria were apparent in the reduction of acuity of conscious audition when this faculty was examined. To slight noises and conversation at a low tone, her hearing was apparently normal; but when tested with a watch, that normally should be heard at about two feet, she consciously perceived it at only two inches with the right ear and three inches with the left one. The Rinné test was negative. Her acuity of hearing high notes, as tested with the Galton whistle, was practically normal. (R. ear 42000, L. ear 84000 plus vibrations per second.)

The right hand perspired profusely and was affected with a marked tremor. The little finger was contracted into the palm; the distal phalanx being extended. Gentle attempts to extend the finger, both in the receiving ward, October 5, and in the nervous department, October 6 and 7, caused a severe emotional reaction as if from severe pain. The more forcible the attempt the more apparent became the subconscious muscular contraction that was responsible for the condition and the greater the writhing and sobbing. In order to retain control of the patient until the following day, when her mother's consent to the employment of hypnotism could be obtained, a dressing of cataplasma kaolina was applied and the hand bandaged. She was easily hypnotized October 7 and the finger was extend-

ed without any difficulty. When seen October 9 she asserted that she was no longer nervous, that her finger was "well," and that there had not been any recurrence of pain since the contracture was removed.

She was advised to continue hypnotic treatment because of her fundamental hysteria; but she failed to return.

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"THE SPIRIT OR ESSENCE OF THE DRUG."

EDITOR OF THE HAHNEMANNIAN MONTHLY:

With Dr. Carmichael's statement, in his communication published in the February HAHNEMANNIAN MONTHLY, *i. e.*, "We thought that all homœopathists agree with Hahnemann that it is the spirit or essence of the drug and not the matter of it that exists in the higher potencies," the undersigned agrees and is glad to see it officially acknowledged, and hopes the

point will be made in the next edition of the new pharmacopœia; for it is an important one. As for the other points, it seems to me useless to exchange further compliments with my esteemed controversialist.

Thanking you, Mr. Editor, for the courtesy of the HAHNEMANNIAN, I beg to remain,

Very truly yours,

E. P. ANSHUTZ.

PHILADELPHIA, February 23, 1909.

CARDIO-HEPATIC HYPERTROPHY AN EARLY SYMPTOM OF PHTHISIS. Dr. S. v. Unterberger (St. Petersburg) in the *Berl. Klin. Wochenschrift*, 1908, Nr. 46, says: "In phthisis the disease is in the lungs; the danger in the heart," in accord with his experiences published in 1894 where cardiac and hepatic hypertrophy were diagnosed as early phthisical symptoms, to be noted by physicians in doubtful cases. The functional disturbances of cardiac activity in commencing phthisis (also confirmed by Franz and Schultzen) develop as tachycardia, not rarely combined with arrhythmia, and followed by stasic phenomena. These latter soon appear on the skin as sudden coldness of the limbs, cyanosis, sweat, slight edema, thrombus formation, or, in the intestinal tract (anorexia, obstipation) or in the liver (demonstrable hypertrophy with tenderness on pressure) or in the kidneys (increase of specific gravity, decrease in volume of urine, or, albuminuria), finally, in the respiratory tract as epistaxis, bronchitis, dyspnea. The cardiac hypertrophy, especially of the right heart, is demonstrable in the majority of cases before the appearance of destructive pulmonic processes. Such individuals exhibit therefore a *status lymphaticus*, which, plus the toxins of various bacteria (including the tubercle bacillus) and blood impoverishment leads to cardiac dilatation.

Comment: There is nothing new under the sun. For further detail as to prodromal symptoms, consult Hahnemann's Chronic Diseases (Boericke and Tafel) under the rubric, "psora."—P. W. SHEDD, M. D.

EDITORIAL

THE DIETETIC TREATMENT OF DIABETES.

THERE is perhaps no better instance of the value of combining physiological chemistry with clinical observation than von Noorden's researches on the effect of diet in diabetes. For many years it was well known that many diabetics placed on a carbohydrate-free diet showed immediate improvement, while others failed to improve or became rapidly and even dangerously worse. The result of this was that while some physicians strongly advocated a carbohydrate-free diet for diabetic patients, others favored only a moderate reduction in starches and sugars while others decried the dietetic treatment, as being without any value whatever. Fortunately, however, the brilliant and painstaking researches of von Noorden and Naunym have given us a clear understanding of the principles which govern the proper dietetic management of this disease, and have furnished us with accurate means of determining the exact character of food that is suitable for any given case.

According to modern views diabetes is primarily a disturbance of nutrition in which the organism is partially or entirely unable to utilize carbohydrate food, and in the severe cases there exists secondarily a disturbance of fat combustion which results in the formation of certain abnormal fatty acids. The exact cause for this disturbance in nutrition in every case is unknown, though many writers claim that some disorder of the pancreas is at fault in the majority of instances. However this may be, inasmuch as we have no direct means of controlling the metabolic disturbance which produces the glycosuria by drugs or similar therapeutic agents, we are compelled to rely principally upon a restriction in the amount of sugar forming foods ingested in order to reduce the glycosuria. Experiments have conclusively proven that the body is capable of forming sugar from carbohydrates and to a lesser degree from proteids. Fats are not a source of sugar in the body, but if administered in excessive quantities they cause the formation of

diacetic acid and acetone, toxic bodies which give rise to the so-called dietetic coma.

In undertaking the treatment of a case of diabetes the first step is a careful analysis of the urine for the purpose of determining the quantity of sugar present, and, secondly, the presence or absence of diacetic acid or acetone. The tests for these latter bodies are simple and will be found in any text-book or diagnosis. If the urine analysis shows that acetone and diacetic acid are absent we should at once proceed to determine the patient's toleration for carbohydrates, as follows: The patient is placed on a "standard diet," consisting of meat, eggs and fats with carbohydrates entirely eliminated. The amount of urine passed each twenty-four hours is collected and the amount of sugar present determined. If the sugar disappears entirely from the urine after the patient has been on the "standard diet" for five days or less, the case is considered a mild one, all other things being equal. Should sugar still persist after the carbohydrate-free diet has been instituted for five or more days, the proteid food must be reduced in quantity. Should this cause a disappearance of the sugar within a few days the case may be considered as one of moderate severity. If sugar fails to disappear from the urine while the patient is on this diet the case must be classified as one of severe and probably fatal diabetes.

In the mild cases of glycosuria, those in which the sugar entirely disappears from the urine on a carbohydrate-free diet, it is important to ascertain accurately the quantity of bread the patient can consume without causing a return of the glycosuria. This is readily accomplished by placing the patient on a carbohydrate-free diet for five days to eliminate the sugar, and then add to the diet wheat bread, beginning with one ounce daily and increasing one ounce each day until sugar again appears in the urine. Having ascertained the quantity of bread that causes a reappearance of the glycosuria the patient is directed to limit his intake of bread sufficiently below the point of tolerance to insure against a return of the glycosuria. By consulting any standard modern diet list for diabetics, the physician will find tables showing the equivalent starch content of most ordinary foods as compared with bread. By means of these quite an extensive diet list may be worked out for most cases without causing a return of the glycosuria.

In the more severe cases of glycosuria, those in

which the urine does not become free from sugar on a diet from which carbohydrates have been eliminated, the dietetic regimen must not be carried out too rigidly. While it is true that the total elimination of sugar from the urine tends to increase the patient's toleration for carbohydrates, experience has shown that in the long run these patients do better if they are allowed a small quantity of carbohydrate food. In the severe cases of diabetes, particularly, the sudden elimination of carbohydrates from the dietary may result in the formation of large quantities of fatty acids in the body and diabetic coma may ensue. In cases with this tendency, as shown by the presence of acetone in the urine, sodium bi-carbonate in doses of thirty grains three times a day should be given. This neutralizes the beta-oxybutyric acid circulating in the blood and causes a disappearance of the acetone reaction from the urine.

In an incomplete and fragmentary way we have endeavored to give a general outline of the scientific application of dietetic methods to diabetic patients. To the physician who prefers accuracy and certainty to chance and doubt a careful study of von Noorden's monograph on this subject will well repay the time spent. The principles involved are easily understood, the necessary tests are readily applied without expensive apparatus, and the application of the methods in practice are simple and satisfactory. With a reasonably early diagnosis and the earnest co-operation of the patient the outlook for the diabetic patient, under modern methods of treatment, is by no means hopeless.

KIPLING'S TRIBUTE TO THE MEDICAL PROFESSION.

FEW indeed are the practitioners of medicine whose names have been commemorated in the "Hall of Fame." Rarely are the laurel wreaths of popular honors placed upon the brows of those whose lives are devoted to the prevention of disease and to the healing of the sick. Volumes have been written by the world's greatest authors in praise of warriors and statesmen but seldom has the pen of poet or of historian been inspired to commemorate the life and labors of some worthy disciple of Aesculapius. It is, therefore, with particular pleasure that we present the following extract from an address by one of the greatest living English authors, Rudyard Kipling, in which

he pays a masterly and deserved tribute to the profession of medicine. The extract is copied from the January issue of the *Ladies' Home Journal*.

The average patient looks on the average doctor very much as a non-combatant looks on the soldiers who are fighting for him. The more soldiers who stand between him and the enemy the better is the non-combatant pleased. It is an army which is always in action, always under fire, against Death. Of course, it is a little unfortunate that Death, as the senior practitioner, is bound to win in the long run, but we non-combatants, we patients, console ourselves with the thought that it is the business of the doctor to make the best terms he can with Death on our behalf; it is the doctor's business to discover how long the attacks of Death can be delayed or diverted; and, when he insists on driving the attack home, to see that he conducts himself according to the rules of civilized warfare.

Every sane human being agrees that this long fight for time which we call Life is one of the most important things in the world, if not the most important. It follows, then, that the doctors who plan and conduct and who re-enforce this fight are among the most important people in the world. Certainly the world treats them on this basis, for it has long ago decided that doctors have no hours which any one is bound to respect—and nothing except extreme bodily illness excuses them, in the world's eyes, from giving their help and skill—at any hour of the day or night—to any one who needs it. Who cares whether a doctor is in his bath or his bed, or on his holiday, or at the theatre? If any of the children of men have a pain or a hurt he will be summoned quickly, and what vitality he may have accumulated during his hours of leisure will be dragged out of him.

In all times of flood, fire, plague, pestilence, famine, murder and sudden death it is required of the doctor that he report himself for duty, and remain on duty till his strength fails him or his conscience relieves him—whichever shall be the longer period.

This is the position of the doctor; these are some of his obligations. They will not grow less with time. Has any one heard of any proposed legislation to limit his output; any suggestion for an eight-hour day for doctors? Has any one noticed any change in public opinion which allows the doctor to refuse to attend a patient who he knows will never pay him? Is there any outcry against those people who are perfectly able to pay for medical advice and surgical appliances, but who cadge around free hospitals for bottles of tonic and cork legs

and glass eyes? It is laid down that the doctor must save others. It is nowhere laid down that he need save himself.

But, with all these obligations, the doctor belongs to the privileged classes. Consider for a moment what his privileges are.

It is given to him to be practically the only person whose explanations the police will accept when he exceeds the legal speed-limit.

On presentation of his visiting-card the doctor can pass through riotous and turbulent crowds unmolested—even with applause.

He can hoist a yellow flag over a centre of civilization and turn it into a desert; he can hoist a Red Cross in the desert and turn it into a centre of civilization.

If he judges it necessary to the success of any operation in which he is interested he can halt a twenty-thousand-ton liner with her mails, in mid-ocean, till he has finished that operation.

He can forbid any ship to enter any port in the world; he can tie up the traffic of any port in the world without notice given.

He can order houses, streets, whole quarters of cities to be pulled down or burned up, and if his patients object to the prescription he can count on the armed co-operation of the nearest troops to see that his orders are obeyed.

To do us poor patients justice, we seldom dispute the doctor's orders unless we are upset by prolonged epidemics of disease. Then if we are uncivilized we may declare that he has poisoned the drinking water for his own material purposes, and we may stone him in the streets. Even civilized people throw stones at him sometimes. He is open, for example, to the contempt of the gifted amateur, who knows by intuition what it has cost the experienced practitioner years to learn. The doctor is exposed to the criticism of persons who consider their own undisciplined emotions more important than mankind's most bitter agonies; who would cripple and limit research for fear research might be accompanied by a little pain and suffering. But if the doctor has the time to study the history of his own profession he will find that such persons have always been against him—ever since the Egyptians erected statues to cats and dogs on the banks of the Nile.

Yet the doctor's work goes on, and the medical profession remains, perhaps, the only class which dares tell our world nowadays that we cannot get more out of a machine than we put into it: that if the fathers eat forbidden fruit their children's teeth are liable to be affected. His training and his practice show him daily and directly that things are what they are, and that their consequences will be what they will be.

Better still, he can prove what he asserts. If a patient disregards his advice the doctor has not to wait a generation to convince him. He knows that in a few days or weeks he will be called in again, and he will find his heedless friend with a pain in his inside, or spots on his outside, or madness in his brain, precisely as the doctor assured him would be the case if he continued in his errors.

All this is the tremendous privilege of the doctor! At a time when few things can be called by their right names, when it is opposed to the spirit of the day even to hint that any act can entail unpleasant consequences, he is the one man who is paid to tell the truth, and whatever departure he makes from the truth is in concession to man's bodily weakness, not a man's intellectual weakness.

The doctor's calling is at once the profession that carries the largest powers and the highest death rate of any profession in the world. We, as patients, therefore, can only wish for its members as much work as it can do, and strength enough to accomplish that work—without having to go to a doctor!

THE ORIGIN, PREVENTION AND TREATMENT OF TUBERCULOUS CERVICAL GLANDS. Dr. A. Most, in the *Berliner Kl. Wochenschrift*, 1909, Nr. 3, admits the possibility of a hematogenic infection of cervical glands but attributes the condition chiefly to entrance of bacilli through the lymphoid pharyngeal ring and the junctions of derm with mucosa, labial, nasal, conjunctival, chiefly, however, via the pharyngeal ring—tonsils, lingual tonsil, etc. The course of the glandular enlargement is commonly from above downwards, thus confirming the mentioned source or point of entrance of the infection. Were it of thoracic origin, the lowest glands would first enlarge.

Prophylactically, the general health is to be cared for; also an anatomical balance of the possible avenues of infection (tonsils, etc.) and, since the bacilli found in these cervical glands are almost exclusively of the bovine type (short, thick rods) the milk consumed should not be derived from tuberculous animals.

The treatment is either conservative (enhancing the general health so that the organism may fight its own battles) or operative, in which latter case it must be a systematic extirpation of all involved glands.

GLEANINGS

TOBLER AND BOGEN: THE DURATION OF GASTRIC DIGESTION OF MILK.—(*Monatschrift für Kinderhk.*, April, 1908, p. 12.) For this investigation the Roentgen rays were employed. The authors found that the presence of as small a quantity as 5 c.c. could be determined by this method. It was not necessary to use bismuth in infants, as in most cases the stomach contents gave a distinct shadow. After ingestion of 100 to 200 c.c. of milk, the stomach appears as a round or oval body, with the long axis in the vertical line. The level of the fluid can be made out with ease. The authors studied the influence of various factors on the time required for the stomach to empty itself. In normal breast-fed infants the stomach was found empty after one and one-half to two hours, varying with the quantity of food ingested. When the quantity of food is increased the duration of gastric digestion increases, but not in proportion, i. e., if double the quantity is given, the delay is only one-third or two-thirds more. The character of the food also plays an important role. The presence of fat considerably delays the emptying of the stomach. This is probably due to the inhibitory action of the fat on the secretory glands of the stomach and to the long continued closure of the pyloric sphincter.

Carbohydrates hasten gastric digestion. The dilution of the milk has a decided influence on the duration of gastric digestion. If the dilution is one-half the duration is shortened; if more than one-half a delay takes place.—*Archives of Pediatrics*.

A DIET LIST FOR MILD TYPES OF DIABETES.—Tyson gives the following list of foods for mild cases of diabetes, in which sugar is readily eliminated from the urine.

Shellfish.—Oysters, mussels and clams, raw and cooked in any style without the addition of flour.

Fish of all kinds, fresh or salted, including lobsters, crabs, sardines and other fish in oil; fish roe, caviar.

Meats of every variety except livers, including beef, mutton, chipped dried beef, tripe, ham, tongue, bacon and sausage; also poultry and game of all kinds, with which, however, sweetened jellies and sauces should not be used.

Soup.—All made *without* flour, rice, vermicelli or other starchy substances and without the vegetables named below as not allowed; animal soups not thickened with flour, such as bouillon, beef tea and broths.

Vegetables.—Cabbage, cauliflower, Brussels sprouts, broccoli, tomatoes, green string beans, the green ends of asparagus, spinach, dandelion, mushrooms, lettuce, endive, coldslaw, olives, cucumbers, fresh or pickled; radishes, sorrel, young onions, watercress, mustard and cress, turnip tops, celery tops, artichokes, gherkins, okra, parsley, or any other green vegetables.

Fruits.—Cranberries, plums, cherries, gooseberries, red currants, straw-

berries, acid apples, lemons, oranges sparingly—all without sugar. Acid fruits may be stewed with the addition of bicarbonate of sodium or saccharin instead of sugar (see below).

Bread and cakes made of pure gluten flour, aleuronat flour, soya flour, peanut or without eggs and butter. Griddle cakes, pancakes, biscuit, porridges, etc., made of these flours. Oatmeal porridge with cream. *Where especial stringency is required the last should be altogether omitted.*

Eggs in any quantity, and prepared in all possible ways, without sugar or ordinary flours.

Butter and cheese.

Nuts.—All except chestnuts, including almonds, walnuts, Brazil nuts, hazel nuts, filberts, pecan nuts, butternuts, cocoanuts.

Condiments.—Salt, vinegar and pepper in moderate quantities.

Jellies.—None except those sweetened with saccharin. Jellies may be made of calf's foot or gelatin, and flavored with wine.

Drinks.—Coffee, tea and coca nibs, with milk or cream, but without sugar; also milk, soda (carbonated) water, and all mineral waters freely; lemonade without sugar, acids, wines, including claret, Bordeaux, Rhine and still Moselle wines, very dry sherry, unsweetened brandy, whisky and gin. No malt liquors, except those ales and beers which have been long bottled and in which the sugar has largely been converted into carbonic acid and alcohol. Saccharin may be used for sweetening tea and coffee.

To Be Especially Avoided.—Cantaloupes, watermelons, peaches, grapes and other sweet melons and fruits; sweet potatoes, rice, beets, carrots, turnips, parsnips, peas and beans; all vegetables containing starch or sugar in any quantity; sweet wines, including sherry, Madeira, port and champagne.

REPORT OF THE EXPEDITION SENT TO JAVA FOR THE EXPERIMENTAL STUDY OF SYPHILIS.—Prof. A. Neisser (*Verhandl. der Deutsch Dermatol. Gesellsch.*, 1908). The results of the research expedition sent to Java under the charge of Professor Neisser are summed up in the following 20 paragraphs. A full description of all the details of the many experiments tried will be published later by the writer:

1. The conviction that the *spirochæta pallida* is the cause of syphilis is confirmed by all of the writer's experiences.

2. In spite of the interesting facts concerning syphilis in rabbits, primary corneal syphilis, cutaneous chancre of scrotum (Hoffmann), syphilis of the testicle (Pasini), general infection spreading from the testicle (Neisser), secondary and generalized syphilis (Grouven), the monkey remains the most suitable animal for experimental purposes, as all varieties, easily contract characteristic chancres from cutaneous inoculation and a demonstrable generalized infection. Typical secondary eruptions are only seen in chimpanzees and gibbons, and possibly in certain species of Pavian monkeys. In the lower orders of monkeys the eruption is serpiginous in form, relapsing in character and situated in the neighborhood of the healing initial lesion. In rabbits, relapsing keratitis, and on one occasion a cutaneous eruption, have been observed.

3. In the animal experimentation no noticeable difference in the virulence of the syphilitic material was observed, whether this used was ob-

tained from primary, secondary or tertiary syphilis of human beings or initial lesions or internal organs of animals. Furthermore, no increase or decrease of the virulence could be artificially produced. The difference in the course of the disease cannot justifiably be ascribed to difference in virulence. This is rather due to the varying quantities of spirochætæ inoculated, or to varying disposition of different individuals or races.

4. Animal inoculations succeed best when plainly visible lesions of the skin are produced. They may also be successful where the skin is apparently uninjured and the blood vessels not opened (corneal inoculation).

5. The generalization of the disease takes place during the first inoculation, often before there is any evidence of the initial lesion. It is demonstrable in every case where the chancre has appeared. The earliest generalization of the disease from inoculation of internal organs occurred on the fourteenth day.

6. No case of general syphilis in the lower monkeys was observed in which the chancre was entirely absent.

7. Infection from subcutaneous injection, though rare, is yet possible when all causes which might produce a local phagocytosis are removed. Infection by intravenous injection or through the testicle was easy to produce. The formation of a typical chancre was not prevented when, in addition to cutaneous inoculation, intravenous inoculation was simultaneously performed.

8. Excision at the point of inoculation when made as late as 16 days can in the case of lower monkeys prevent infection. To obtain this result the excision should be made as extensive as possible, followed by cauterization with tincture of iodine. Excision has, however, failed to prevent infection when carried out as early as eight hours after inoculation. When the attempts at excision were unsuccessful, relapses occurred in the wound. Local injections of mercury or atoxyl at the point of inoculation did not prevent infection.

9. Disinfection at the point of inoculation as suggested by Metchnikoff was successful in very many cases and is to be recommended as a prophylactic measure. In addition, the thorough greasing of both male and female genitals before coitus is of advantage. The following have proved more suitable than the 33 per cent. calomel-vaseline-lanoline suggested by Metchnikoff.

(a) 33 per cent. of calomel or calomelol ointment, containing a solution of sodium chloride.

(b) 2-1000 or, better still, 3-1000 sublimate solution.

(c) 10 per cent. quinine-glycerine-water solution.

(d) 50 per cent. iodoform-glycerine.

10. In two years' observation upon lower monkeys no spontaneous cure has ever been observed.

11. Immunity in the narrow sense of the word—that is, inability to be reinfected after complete cure—could not be determined. All of the animals apparently immune were shown experimentally to be still syphilitic. It was found to be impossible to produce syphilitic lesions in these animals either by inoculation with their own virus (excised spleen, producing syphilis when inoculated in other animals) or with virus from other mon-

keys. If the animals had really been cured a reinoculation ought to have produced a typical chancre.

12. It is not justifiable to judge without reserve of human syphilis from the conditions that obtain in syphilis of the lower animals. The human body offers, apparently, a much better culture medium for the development of the spirochætæ and its generalization in the body, so that excision at the point of inoculation is not as likely to prevent infection in man as it is in the case of the lower monkeys. In man the primary lesion can apparently fail to make its appearance.

13. The production of a second specific induration in human beings already syphilitic can succeed.

(a) As long as the second point of inoculation is not saturated by the virus from the first inoculation. This saturation takes place slowly, affecting one region after another.

(b) Or, again, when at the second point of inoculation the "immunity" is lost. The specific influence upon the tissues in the later years following the infection disappears region by region.

This reinoculation can remain local when other regions of the body still remain under the influence of the first attack of syphilis (superinfection). It can, on the other hand, lead to a general syphilis (true reinfection).

(a) In the case that the first syphilis has completely disappeared.

(b) Or in the case that the first syphilis remains localized in one region (tertiary manifestation).

The lesion caused by reinoculation can act as a primary lesion when the tissue reaction produced by the first attack of syphilis has disappeared, or it can assume the character of a secondary or tertiary lesion when the tissue reaction remains.

14. In persons still syphilitic a superinfection can produce specific manifestations, which should not be considered as due to spirochætæ. According to the character and stage of the disease, the lesions have secondary, malignant or tertiary forms. As it is almost never possible to find spirochætæ in these lesions or produce syphilis in other animals by their inoculation, the writer is disposed to regard these lesions as toxic products of reaction and not as true superinfections.

15. Mercury and a number of arsenical preparations are able to eradicate syphilis completely in lower monkeys. Virus that is latent is also destroyed by administration of a sufficient amount of these remedies. This fact removes the chief objection to treatment in the latent stages (chronic intermittent method). Iodine preparations and quinine can also bring about a cure, but are less powerful than mercury and arsenic.

16. Abortive treatment begun between the first and eighth day failed to produce any result when mercury was employed, but did succeed—that is, the disease did not appear—when atoxyl or acetyl-atoxyl was used. It is, therefore, not only justifiable, but proper, to begin treatment of every case of syphilis as soon as possible. By demonstration of the spirochætæ and by means of the Wassermann test a diagnosis can be made before the appearance of general manifestations.

17. Of the arsenic preparations that can be employed for human beings the acetyl-atoxyl (Ehrlich), while of equal curative power, is much less poisonous than atoxyl. The solutions do not deteriorate and can be ster-

ilized by heating as often as desired. Courses of treatment consisted of 20 injections or 0.6 grams weekly, on two succeeding days. Aside from occasional digestive disturbances to women, no other ill effects were noted.

18. It would certainly not be proper to give up a tried remedy such as mercury (except where it cannot be tolerated) for acetyl-atoxyl, a drug as yet so little tried in human syphilis. The writer will for the present combine the two drugs either simultaneously or in alternate courses of treatment.

19. The value of all general courses of treatment should be measured not as formerly, by their symptomatic effects, but should be of as great duration and intensity as can be borne without injuring the system.

20. As all syphilitic efflorescences are due to spirochætæ, and as all these localized lesions may act as residual depots, with virulent spirochætæ, and later act as centers from which relapses occur, great weight is to be laid upon local treatment where possible. For this reason every syphilitic should submit to at least one energetic course of inunctions, which serve as the local treatment for cutaneous depots. Internal administration of anti-syphilitic drugs is, perhaps, especially adapted to reach and dispose of visceral collections of spirochætæ. The initial lesion, even when the general infection is complete, should be removed, as this is the chief source of supply of spirochætæ to the system.—*Med. Review of Reviews*.

CATARRHAL DEAFNESS AND ITS TREATMENT.—The usual history of these cases is as follows: Some time ago, perhaps weeks, months or even years, he was subject to frequent colds; he had more or less sneezing, coughing with morning exacerbations of hawking and expectorations, especially far back in the nose and throat. Gradually he noticed that he could not hear the ordinary conversation as well as usual, but instead he heard much better in noisy places. There is a ringing in one or both ears. This is especially marked upon lying down and seems to be keeping time with the heart beats. He cannot hear a watch tick unless pressed hard to his head. He has also noticed that when he forcibly clears his nose by blowing, he can feel or hear a click in one or both ears, and for the next few hours or days hears very much better.

The history of course is almost sufficient for a diagnosis, but we examine the patient, we find under proper illumination that the membrana tympani has lost its usual pearl gray luster, it appears cloudy with fibrous bands strongly marked traversing it, the margin is usually reddened and the concavity increased. A tuning of 256 or 512 vibrations to the second is not heard when held a short way from the external meatus, but when placed in contact with part of the head bones the musical note is at once perceived.

This shows us then, without the detailed examination of aural specialists that the perceptive mechanism is intact, but the conducting mechanism, at least to air vibration, is faulty.

Treatment.—Having made the diagnosis of an ordinary case of deafness due to catarrhal conditions, and having in mind the deviation from the normal, certain conditions present themselves that require our attention. The disease began and still is in the nose, either a hypertrophic or

an atrophic condition, or both, exist at the same time. General constitutional measures are always indicated and must never be omitted. For the local treatment we make use of some alkaline nose spray, because the normal secretions of the nose are alkaline in reaction, but in case of acute or chronic nasal catarrh it frequently happens that these discharges take on an acid character. The acidity may be due to some external influence, or it may be and more likely is, a provision of nature. We know the alkaline solutions soften, while acid solutions harden mucous membrane. We also remember that during the acute stage of an inflammation the mucous membrane is swollen and congested, an acid solution is therefore indicated to cause contraction. The acid should, however, proceed from within outward, as it really does when nature works her own cure. If, therefore, we wish to assist nature, and that should really be our mission, it should be our duty to use an alkaline solution for a nose spray. In the first place, by applying to the outside of a mucous membrane an alkaline solution we stimulate the acid glands and so cause a stronger acid activity to take place within the mucous membrane, leading to greater evacuation and saturation of an acid media, with consequent contraction of the tissues in a normal or natural manner; secondly, we should use an alkaline nose spray because the alkaline spray will soften and better remove the tenacious acid mucus and the dried scabs. Assuming that the naso-pharynx has been properly cleansed, a mucous membrane either in a state of hypertrophy or atrophy requires a stimulating measure. Of all agents used, the high-frequency current from a glass vacuum electrode, delivered to the entire mucous membrane of the nose, is perhaps the best. This current should be used to the point of comfort for two or three minutes in each of the nares. As an aseptic and antiseptic dressing we make use of a 10% solution of iodine and albolene. This mixture is sprayed into the nasal cavity with an albolene atomizer.

When the entire nasal cavity has been so prepared, an attempt should be made to force air into the Eustachian tube for two reasons; first, to equalize the air pressure upon the drum-membrane, and secondly, to facilitate the discharge of the mucus and accumulations from the tympanic cavity; in other words, we restore the physiological function of the tube. It remains now to break up the fibrous ankylosis that exists between the membrane tympani and the articulations of the chain of ossicles. For this purpose we require a pump capable of alternating between a suction and compression stroke. This pump is attached to an Otis auroscope. The speculum of the auroscope should be protected by a small rubber tip to avoid undue pressure or injury to the auditory canal. This instrument is fitted with a small incandescent lamp and a magnifying lens so arranged, that when the apparatus is in action the movements of the entire membrana tympani may be under ocular supervision. The vibrations should be of moderate speed at first, but soon increased to tolerance for about two or three minutes in each ear. The treatment is then completed by adjusting the pump in such a manner that the suction stroke only is used. This causes more or less of a vacuum in the outer canal, the membrana tympani very promptly yields to the vacuum and bulges outward.—Geyser, *American Journal of Surgery*.

EYE LESIONS AND GOUT.—Bull, in the *Medical Record*, December 19, says that while the association of grave lesions of the retina and choroid are by no means of common occurrence, they seem to be increasing in frequency and are very destructive of vision. Such lesions particularly call for the co-operation of the family physician and the ophthalmologist. The patients are markedly gouty, past middle age, and leaders of an ultra-strenuous life. The intraocular inflammation was never simultaneous with an acute arthritic attack but an intestinal attack always followed, in Bull's cases, and the urine showed marked excess of uric acid and high indican percentage, denoting faulty metabolism of fermentative intestinal origin. The uric acid acts not only as a toxic agent, but as a mechanical irritant. All the patients showed the well-known cardiovascular changes of chronic lithemia. Bull discusses the pathologic conditions, chief of which is increased blood pressure, which causes intraocular tension and consequent hemorrhages into the eye. The hemorrhages occur early in the disease, and are less likely to happen later when the vessels have become thickened by the disease. The great danger is the development of acute glaucoma, which is especially prone to occur in the hypermetropic or very astigmatic eye. The treatment and management of these patients varies with age, general condition, nature of lesion, and severity of type. Habits of life must be regulated—as much quiet as possible, moderation in eating and drinking, and curtailment of meat are necessary. Systematic exercise in the open air is called for. The moderate use of alcohol, if it is well diluted, need not be interdicted, for while alcohol dilates the peripheral blood vessels, it does not appreciably increase the blood pressure as tobacco does, which last must therefore be forbidden or reduced. Water should be taken frequently between meals. To reduce blood pressure, sodium nitrite, combined with a heart tonic, is useful. If the blood pressure is very high vaso-dilators must be administered slowly, and their effects on blood pressure, pulse rate, and sensations of the patient, carefully noted. Bull regards the last point as of even greater importance than the other two. Locally, pilocarpin in 0.5 per cent. or 1 per cent. solution should be used to draw the iris from the anterior chamber and to lower intraocular tension. Smoked glasses, not darker than tint No. 3, should be used. An iridectomy in an acutely inflamed eye requires general anesthesia, which in the general condition of the patient increases the danger. In 5 cases reported, iridectomy was avoided by the following methods: Under a strong solution of cocain a paracentesis of the cornea was done and the aqueous humor allowed to flow out, drop by drop, from the anterior chamber, thus lowering the tension very slowly and avoiding danger of intraocular hemorrhage. Two leeches were applied to the temple until they dropped. A solution of eserine sulphate, one grain, and of pilocarpin, four grains, was instilled every hour, until, under the combined influence of the paracentesis and the use of myotics, the eye softened and the pain grew less. The eserine and pilocarpin are applied less frequently as the tension and pain subside, and hot applications to the eye are used, 20 drops of the fluid extract of *jaborandi* also being given internally three times a day.—*Jour. Amer. Med. Assoc.*

FRESH AIR IN PNEUMONIA.—T. W. Kilmer (*Journal of the American Medical Association*, July 25, 1908), reports the results of the fresh air

treatment in 16 cases of lobar pneumonia and 20 cases of bronchopneumonia in dispensary babies. Nearly every clinical type was represented, from mild to very severe, and the diagnosis was positive in every case. Many of the parents were ignorant, but willingly followed instructions and carried out the treatment surprisingly well. The treatment of both lobar and bronchopneumonia in these cases consisted in giving an initial purge (castor oil or calomel); mustard poultice to the chest; sponging to reduce fever; cutting down diet to one-half strength; hygiene of body, clothing and sickroom, etc.; light expectorant every two hours for six to eight doses in twenty-four hours; keeping the gastrointestinal tract clear; abundance of fresh air; rest. One patient died, but not until the mother had insisted on taking the baby to a hospital; it is, nevertheless, included in the series. This makes the mortality 2.77 per cent., which is remarkably low for either private or hospital practice. The study, Kilmer thinks, shows conclusively that, by a combination of simple instructions to parents, and quiet, rest, proper food, and, above all, fresh air for the child, the mortality of one of the most serious diseases of infancy can be greatly reduced.—*Medical Record*.

ATONIC DILATATION OF THE STOMACH.—Young says in the *Clinical Journal* of September 23, 1908, that the essential factors for successful treatment in atonic dilatation of the stomach are to strengthen the musculature of the viscus and promote peristalsis, and to arrest fermentation and thereby inhibit the symptoms of autointoxication.

In endeavoring to attain these objects the primary consideration must be to regulate the diet, and unless this is done we cannot hope for a satisfactory issue, despite the aid of other therapeutic measures, which, although valuable, can only be regarded as accessories. Briefly, the ideal diet is one which combines "a maximum of nourishment with a minimum of weight and bulk," and should, therefore, consist chiefly of proteid foods in an easily assimilable form, such as minced freshly cooked beef, mutton, chicken, game, fish, and the various meat and milk powders.

Starchy food, in view of its weight, bulk, and fermentability, should be reduced to a minimum, and in severe cases may occasionally be excluded altogether during the early stages of treatment. When given, it should be in the form of crisp toast, rusk, or "baked bread" (thin slices of bread baked in the oven until golden brown), in all of which the starch is partially dextrinized.

Vegetables, for a similar reason as regards bulk and fermentability, should generally be excluded in the early stages of treatment, and when introduced should be green varieties only, and given in the form of purees.

Fats should also be but sparingly partaken of, cream or fresh butter being the most digestible forms when allowed.

In order, again, to minimize weight and bulk no fluids should be taken with meals, but from five to ten ounces of water, preferably hot, may be slowly sipped one hour before meals. Taken in this way, as Sir William Broadbent has pointed out, "it stimulates the stomach to contract and expel gas or stagnant contents." In fact, he considers, in common with All-thin and others, that in severe cases a diet restricted for a time to lean

minced beef and hot water may be most beneficial. Saundby says "the digestibility of finely divided meat is not sufficiently appreciated; probably no food is tolerated so well by our stomachs, for even where the gastric chemistry is deficient such food is easily got rid of and causes no discomfort." The writer, from personal experience and from results obtained with patients, can emphatically indorse this opinion. The rationale of the method, sometimes called "the Salisbury diet," is as follows: The patient is restricted to three meals a day, with a five-hour interval between each. The diet for a few weeks is restricted to minced freshly cooked beef, varying from two to eight or ten ounces at each meal, and hot water, the latter being slowly sipped in quantities of five to ten ounces one clear hour before each meal. Ten ounces should be the limit, since the bulk of a pint, which is sometimes prescribed, is obviously injurious to a dilated stomach. As soon as evidence of undue fermentation has disappeared, a little starch food is added to the dietary, then purees of green vegetables, and as progress is made, various other articles of diet at the physician's discretion.

Summing up the advantages of the above method it is apparent (1) that the small bulk and comminuted condition of the food imposes but a minimum of work on the stomach; (2) the hot water tends to stimulate and cleanse it; (3) the absence of carbohydrate food, by depriving abnormal fermentative organs of pabulum, tends to arrest the symptoms of auto-intoxication.

In milder cases small quantities of starch and fat foods may often be taken with safety from the commencement of treatment, but even in these cases the proteid element should predominate in the dietary until the dilatation has marked decreased.

In very severe cases it is often advisable to confine patients to bed and to feed exclusively by nutrient enemata for some days, so giving the stomach a complete rest. Even when food by the mouth is resumed, it is well, until the patient is able to take a fair amount of nourishment, to continue enemata, remembering also to give enemata of water up to two pints a day, since in such a case the patient cannot with safety take enough fluid by the mouth to suffice his physiological needs.—*Therapeutic Gazette*, December, 1908.

TREATMENT OF GONORRHEAL ARTHRITIS.—Dr. Bendig (Schreiber's Dermatological Division of the Madgeburg Krankenanstalt Altstadt) *Med. Klinik*, August 23, 1908. Bendig has combined Bier's hyperemia with collargol enemata and unguentum Crede, occasionally, also giving hot air applications. He details seven cases in which these combined measures did him great service and recommends further trials. Collargol intravenously has been used by Riebold with brilliant results in gonarthritides which had for weeks resisted all therapy. A number of authors have used collargol in gonorrhea and its complications; thus Schlossmann, Voelker and Lichtenberg as also Jeanbrau had splendid results in cystitis. In gonorrheal urethritis Gans and Georgi used 1 to 5% collargol irrigations. In general gonorrheal infections Kornfeld gave collargol per rectum and Herman intravenously, with much success.

ARTERIAL PRESSURE AND THE GLANDS OF INTERNAL SECRETION.—Dr. J. Parisot, of Nancy, has recently published a book under the above title, in which he combines experimental research with clinical observation; that, according to Prof. Roger, of Paris, is what gives this work a primordial interest and renders it particularly instructive. In fact, it is with this method that he has been able to verify certain points heretofore considered obscure, and clearly established new facts, interesting both to the experimenter and to the clinician. Dr. Parisot has studied the action exerted by four glands upon arterial pressure. Two of them mixed, of internal and external secretion, (liver and kidney,) and two exclusively emptying their products into the organism (suprarenal and pituitary). This valuable comparative study clearly shows the important role of each of these glands during the vascular modifications of the organism, both during the normal and during the pathological states. And if useful to study the influence exerted by these normal glands on arterial pressure, it is no less interesting to investigate the different effects of their extracts and the vascular troubles they are liable to when discussed. This is the work which our Sajous claims will render the profession in particular, and humanity in general, incalculable benefit.—*Le Mois Medico-Chirurgical*.

OBSERVATIONS ON CHOKED DISC.—Bradley, Jr., and Cushing, from their experience with about two hundred cases of brain tumor, as well as a large number of other intracranial conditions, and from the results of their experimental work, conclude that choked discs are produced mechanically as the result of increased intracranial tension. The diversity of opinion and teaching, as to the nature and cause of choked discs, existing among those who have studied this condition is deplored because of the difference in mode of treatment, depending upon the view accepted.

Those who believe in a toxic or inflammatory mode of production do not afford their patients the relief that generally follows decompressive operations. The authors have succeeded in producing choked discs in animals as the result of artificially increased intracranial tension secured by means of sub-dural injection of fluids. They have noticed that choking of the discs, when produced in this way, appears first in the contralateral eye.

In almost all cases of fractures of the base œdema of the papilla was noticed; even as early as a few hours after receipt of the injury. Increased intracranial tension was noted at the operation in all cases that had previously manifested choking of the discs. In the absence of this symptom, with several exceptions, operation did not disclose any increase in tension.

In contradistinction to the views usually accepted they have found that choking of the discs occurs rarely in meningitis, unless this latter condition has caused increase in tension by reason of the formation of secondary obstructive hydro-cephalis. In fact the appearance of choked discs during the course of meningitis is regarded by them as indicative of the presence of this complication.

Temporary decrease, both in the amount of vascular congestion and papillary œdema has been remarked in hydro-cephalic patients who have been tapped, by ventricular puncture, while the fundus has been under continuous observation.

They are inclined to accept the views advanced by others that the cerebral symptoms and nemoretinal lesions occurring in nephritis are the result of increased intracranial tension due to cerebral œdema. In support of this contention they state that in eighteen of their two hundred cases of cerebral tumors the typical retinal changes of nephritis were found. In twelve of these patients the possibility of associated renal disease was eliminated clinically. Furthermore, in cases of albuminuria retinitis reduction of intracranial tension by lumbar puncture caused temporary improvement in the appearance of the eye grounds and amelioration of the patient's subjective symptoms.

Homolateral affections of the discs was most pronounced in 70% of their tumor cases; and involvement of the eye grounds occurred in the homolateral eye first in 80% of cases who had been under observation before the development of choked discs. Because of the value of this fact in cerebral localization they are in the habit of determining which eye is the more involved by examining for connective tissue changes in the discs, presence of atrophy, character of the visional fields and visual acuity. Early decompressive operations are recommended, without waiting for definite localization, in cases of cerebral tumors as well as other cerebral conditions in order to prevent progression of the ocular manifestations and to improve or cause to subside those already present.—*Jour. of the A. M. A.*, Jan. 30, 1909.

CHARLES D. FOX, M. D.

A HUMAN EXPERIMENT IN NERVE DIVISION.—*Brain* Vol. xxx, part cxxiii. In a voluminous article of 127 pages, Rivers and Head record the important results of a series of experiments, conducted upon Head for 167 days, during a period of over four years, after division and suture of the radial and external cutaneous nerves of one upper extremity. This operation interrupted all sensory impulses from the affected area except those passing to the cord in nerves of muscles and tendons, the existence of which was demonstrated through degenerative methods by Sherrington, clinically by Head and Sherren, and experimentally in this paper.

The recognition of a tactile stimulus, immediately after the section, by means of the sense of deep pressure was unimpaired; even though the skin was frozen with ethyl chloride. Without attending closely, Head was unable to detect the difference between perceptions of touch arising from pressure upon adjacent normal skin, and those originating from like stimulation of the nerves of deep sensibility in the affected area.

Roughness was appreciated better in the implicated region than in the corresponding locality of the opposite and normal member. Though the skin was analgesic to electricity and pin pricks, expressive pressure caused pain. The ability to localize a stimulus remained unimpaired even when the skin was frozen with ethyl chloride. Sensations of involuntary muscular movements, as obtained by means of electricity, remained intact. Discrimination of two points simultaneously applied, appreciation of the size and shape of objects laid upon the affected area and thermic impressions were completely lost. The pilomotor reflex was lost. Sweating was not observed for 112 days, but the growth of the thumb nail was normal.

During regeneration painful cutaneous stimuli began to be perceived at

the 86th day, cold after 112 days, and heat at the 166th day. Heat and cold were first detected in a few scattered spots of which the heat spots were very much less numerous. Stimulation of a cold spot with heat produced a sensation of cold, but a sensation of heat could not be caused by stimulation of a heat spot with cold. Electrical and mechanical irritation of either of these varieties of spots had no effect in the production of a thermic sensation. Tactile sensation, based upon the sensibility of hairs and capable of being removed by close shaving, returned after 86 days. True epicritic tactile sensibility developed 75 days later. Head could distinguish between these two kinds of tactile sensations by reason of the fact that the one due to the sensibility was diffused and referred to remote parts. As the remainder of the results of experimentation and the general theoretical conclusions are not capable of being abstracted reference should be made to the original article.

CHARLES D. FOX, M. D.

MENTAL CAUSES IN BODILY DISEASE.—The object of the author is to call attention to the psychic origin of the so-called gastric neuroses and the occasional difficulty in differentiating these from the gastric syndromes caused reflexly by organic diseases of the peripheral nervous system.

The gastric crises of tabes are adduced as examples of the reflex production of gastric disturbances without local disease of the stomach being present. The author accepts Nageotte's theory of the pathogenesis of tabes; namely, progressive inflammation of the posterior, or sensory, nerve roots, secondary to chronic localized syphilitic meningitis. Irritation of the sixth, seventh, eighth and ninth posterior nerve roots by the disease process produces the same effect as irritation of their terminal filaments in the gastric mucous membrane.

A second reflex form of gastric derangement is that due to meningitic irritation of the eighth cranial nerves and to excessive stimulation of the vestibular nerves, such as result in seasickness and Meniere's disease.

Pawlow's demonstration of the influence of mental processes upon the secretion of the gastric juice and the familiar inhibitory effects of depressing emotions are mentioned as conspicuous evidence of the manner in which gastric neuroses are often originated. Accidental and temporary indigestion, coupled perhaps with the solicitations and medical treatment of a physician concentrate the patient's attention upon his digestion and create a belief in the incompetence of his stomach. The consequent anxiety about digestion prior to and during meals results in inhibition of the secretion of the gastric juice so that a vicious circle is established. Therefore in treating such cases attempts should be made to remove the causative fixed idea, by a method of psychic re-education, rather than by illogically resorting to local treatment. Gastric neuroses, in the author's opinion, will continue to occur until physicians recognize the mechanism of their production and cease fixing, by unconscious suggestion, accidental and temporary gastric disorders.—Tom. A. Williams, *Journ. of Abnormal Psychology*. Vol. III, No. 6.

CHARLES D. FOX, M. D.

FACIAL PARALYSIS: A STUDY OF THREE HUNDRED AND THIRTY-FIVE CASES. By G. A. Waterman. In the author's series of 335 cases of the neuritic type of facial paralysis the right side was affected in 163 cases, the left in 157 cases and both sides in two cases.

Twenty-two of the patients were examined by an aurist during the first week that paralysis existed; in 19 of these the middle ear was found to be normal, while in 3 there was a mild degree of congestion.

Though the lunar incidence of his cases was fairly uniform, the author is convinced that a history of exposure is obtained too frequently to be merely coincidental. He believes that exposure is the exciting cause only when associated with predisposing diminution of the power of resistance. In his series recurrence happened in 2.7% of the cases. The disease was most frequently encountered in the third decade of life, but was most severe in its manifestations in the fifth and sixth decades. The presence or absence of premonitory pain in the ear or mastoid region seemed to have no prognostic value. The author believes that secondary contracture is not caused by the therapeutic use of galvanism.—*The Jour. of Nerv. and Mental Dis.* Feb., 1909.

CHARLES D. FOX, M. D.

THE DANGER OF CALMETTIS OPHTHALMIC REACTION.—In the May number the writer reported his conclusions that the reaction though sometimes obtained in the non-tuberculous and sometimes not obtained in the certainly tuberculous was a useful aid to diagnosis and that if the eye used for the tests are healthy there was no danger to be feared from the $\frac{1}{2}$ or 1 per cent. solution of tuberculin. Three of the cases quoted in that paper have since done so badly that he is now of the opinion that the dangers are very real, and that as the reaction is by no means conclusive, it is hardly a justifiable method of diagnosis. In one case, as a result of the instillation of tuberculin, a typical tuberculosis process was set up in a perfectly healthy eye, a central corneal ulcer developed, and the resulting nebula will considerably reduce the vision of that eye. He also gives similar experiences of other men. He has abandoned the method and is now employing injections of old tuberculin as an aid in diagnosis in doubtful cases of tuberculous nature.—T. Butler Harrison, *British Medical Journal*.

WILLIAM SPENCER, M. D.

PRELIMINARY REPORT OF A THEORY OF THE ETIOLOGY, PREVENTION, PATHOLOGY, TREATMENT AND CURE OF TRACHOMA.—Dr. Frank B. Eaton has published a report of a theory of the etiology, prevention, pathology, treatment and cure of trachoma. He claims that all trachoma is primarily an infection of the blood by micro-organisms which are protoplasmic bodies that enter the human vascular circulation through the conjunctiva palpebræ. These are carried by insects, some of which introduce them by biting, and others carry them on their mandibles, legs, etc. These parasites are of two kinds: one, the exogenous (Koch), which is introduced by biting; the other, endogenous, which is carried as before stated. That the life of the exogenous parasite includes a primary, an intermediary and a human host. That the life of the endogenous parasite begins and ends with the blood and tissues of human beings, and obtain access to the human vascular

septum through the capillaries of the integument and conjunctiva palpebræ and is the only one which is infectious from one human being to another; consequently, that there are two similar and distinct diseases which are clinically termed trachoma, but which are really quite different, both biologically and pathologically; one being contagious and caused by the endogenous parasite, while the other is non-contagious and carried by the exogenous parasite.—*Ophthalmic Record*.

WILLIAM SPENCER, M. D.

THE SUBCONJUNCTIVAL ASEPTIC ABSCESS AS A CURE OF ULCERS SERPENS.—The writer experimenting with paraffin oil, mercuric iodide mixture, found that the mixture in the following proportions: Paraffin oil mixture, 1 part (mercuric iodide; paraffin oil 2.000); vaseline oil, 2 parts—if injected subconjunctively, acted very favorably in cases of ulcers serpens. Having cocainized the eye, two graduations of a Pravaz syringe containing the mixture are injected under the conjunctiva near the limbus. The injection of larger quantities causes rather a severe reaction. One injection usually suffices. A subconjunctival aseptic abscess forms which is not evacuated. Conjunctival instillations of the mixture and application to the ulcer are made use of simultaneously in many cases. The subconjunctival method, however, has of itself resulted in a cure. Atropine is generally necessary and evacuation of large hypopyons is desirable.—*Patras Fereninos, Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

INFANT FEEDING.—Pisek summarizes an admirable article on this subject as follows: All infants require a liberal supply of fat and carbohydrates to supply energy and heat and a small supply of proteids and mineral matter to replace the daily loss. If these are supplied, the infant can get along for considerable periods of time without showing bad effects, but successful development and growth cannot take place.

For proper growth, a liberal supply of proteids and mineral salts in addition to the quantity needed to replace waste, is absolutely essential, for while gain in weight may result from the conversion of fats and carbohydrates of the food into body fat, growth or the formation of blood and tissue cannot occur unless there is more proteid and mineral matter in the food than is needed to repair loss. The development of the infant rests on the proteid supply.

A portion of the proteids of the food for healthy infants must be in the form of milk, as this is changed into a semi-solid food in the stomach by the gastric secretions, which is the forerunner of solid food.

All infants conform to the general laws of nutrition, and no infant is a law unto itself except in nonessentials and in its preference for different forms of food.

Varying the form in which the food elements are presented has much to do with the success in feeding, and feeding in difficult cases depends absolutely upon it.

Infants differ to a marked degree in capacity for digesting and assimilating food. Some will be able to thrive and grow on a quantity of food on which other infants will not much more than hold their own.

As each element of the food performs a special function in nutrition, it

is important to know approximately the composition of all feeding mixtures employed, for excess or deficiency of one or all of the ingredients is attended with harmful results if continued for any length of time.

The raw materials for making up food for infants, under all conditions, consist almost exclusively of cow's milk, milk sugar, cane sugar and the cereals.

The successful infant feeder is the one who can combine these substances in such a manner as to meet the peculiarities of each particular infant.—*Amer. Jr. Obs.* Vol. 58, 694.

THEODORE J. GRAMM, M. D.

ACUTE PANCREATITIS.—In an article reporting three cases of this disease, Frank, (Louisville), says the pancreas seems to have been the last organ of the abdomen to come under the care of the surgeon; in fact, the problems in connection with the pancreas, both physiological and pathological, have yet to be worked out in their completeness. It has become evident during operations upon the gall bladder that diseases of the pancreas are more common than we have been led to believe. Of acute inflammation Fitz has designated three varieties—hemorrhagic, suppurative and gangrenous. The author does not believe that these are primarily true inflammations due to bacterial infection. Bacterial infection does occur, but it is rare that this is the cause of the so-called acute inflammation. Gall stones commonly accompany pancreatitis, both acute and chronic. Besides the local pathology in the gland itself the most striking changes occur in the subperitoneal fat in the form of fat necrosis. In this condition the essential changes are in the cell, and are due to a splitting up of the fat molecules into fatty acids and its soluble constituent, glycerin. Unfortunately this fat necrosis cannot be noted until the abdomen is opened. Diagnosis is quite difficult before operation. The symptoms are those of an acute septic peritonitis of the upper abdomen. Fitz's rule is worth bearing in mind, that acute pancreatitis is to be suspected when a previously healthy person or a sufferer from occasional attacks of indigestion is suddenly seized with violent pain in the epigastrium, followed by vomiting and collapse, and in the course of 24 hours, by circumscribed swelling, tympanites or resistance, with slight rise of temperature. The previous history is of much importance. The pain is violent, sudden and of a pronounced type. It has been described as more frightful than of gall stones; in fact absolutely intolerable. It is usually located in the epigastrium, and may possibly be accompanied by vomiting. The latter is frequent, regurgitant, and of feculent order, but never stercoraceous in character. This odor had frequently led to the diagnosis of intestinal obstruction, especially as constipation is a conspicuous symptom. Tenderness in the epigastric region begins with the very onset of the trouble. Collapse is profound. Death may ensue within an hour or two after the onset of the symptoms. Again this latter symptom, collapse, may not appear until a day or two has passed. Occasionally there may be no shock at all. Pulse and temperature are usually increased and there may be chills preceding the onset. Tympany is present, and may be very great. Jaundice may be present at the start; but as a rule it does not appear until later. In fulminating cases a tumor will rarely be detected though there is marked epigastric resistance,

but in a few days a tumor will be felt. There is fat in the stools, and the finding of undigested muscle fibre is positive evidence of the absence of pancreatic juice. Urinary tests are usually negative, and the author has not been able to get the Cammidge reaction. After several days, with the appearance of swelling, jaundice and other evidences, the diagnosis should not be of such great difficulty, but at this time the opportunity for beneficial surgical interference has probably passed. Early operation, consisting mainly in drainage, is the only hope.—*Amer. Jr. Obs.* Vol. 58, 831.

THEODORE J. GRAMM, M. D.

THE TREATMENT OF ECLAMPSIA.—Mohlmann has written an instructive article which portrays the clinical course of eclampsia, and the results of applied treatment. He reports 106 cases from Olshausen's clinic in Berlin. The total mortality amounted to 15.4%. The advantages of not adhering rigidly to a general rule, as for instance emptying the uterus, but to treat cases according to individual requirements and with some regard to conservatism, is well illustrated in 21 of his cases which had one, two or three convulsions at the time of admission. In these cases several hours and even some days were permitted to elapse before intervening, and no death occurred in this series. The advantages of this method in sixteen of these cases was that ordinary obstetric operations only were necessary or spontaneous delivery occurred, whereas if they had been operated upon at once the vaginal Cæsarian section or the Bossi operation would have been necessary. In 5 cases, after some delay, it became necessary on account of the severity and frequency of the attacks to operate in a more serious manner. The effect of the convulsions upon the general condition was the determining factor regarding when to operate. On the other hand the number of attacks does appear to be a material factor regarding the prognosis. Thus the mortality reckoned with respect to the number of attacks gives the following results: In cases having as many as three convulsions, the mortality was about 5%, and this percentage rises proportionately so that in those having from ten to sixteen attacks the mortality was 30%.

The author mentions the end results of the various obstetric procedures, and from this view of the subject it is noteworthy that after spontaneous delivery occurring in 10 cases, in only one instance did a spasm follow delivery. This number is, however, too small to warrant any conclusions. After delivery 64% of the cases remained free from convulsions. As opposed to the experience of Esch, some years ago, who had a higher mortality after spontaneous than after operative delivery, Mohlmann observed a smaller mortality. The greatest average mortality followed the Bossi operation, namely 28%, but this operation was also performed in the most serious cases.

In the treatment aside from the operative, and during the time of observation of the case, this author does not use morphia, except for restlessness. He prefers chloral or sodium bromide by enema. Venesection is used when cyanosis or tense pulse exist, and is followed by salt solution subcutaneously.—*Zeitschr. f. G. u. G.* Vol. 62, 79.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

A LECTURE ON ARSENICUM.—On Monday, December 7, Dr. Wheeler lectured on arsenicum. He began by referring to the use of arsenic for poisoning in the middle ages, the absence of any efficient test for its discovery in the dead body, making it a favorite substance for use in criminal poisoning, and also the close resemblance of its symptoms to those of Asiatic cholera, made it easy to employ it for criminal purposes without fear of detection at times when there was an epidemic of cholera. It is still used as a poison for suicidal and criminal purposes, the more frequently so as it can be readily obtained, being the principal ingredient of many weed-killers and cosmetic lotions. Arsenicum album is a polycrest. Its chief affinity is for the mucous membranes and the skin. It can be collected from the stomach after being introduced into the body by hypodermic injection, proving that it has a definite affinity for the mucous membrane of that organ. It strongly affects the nerves, especially the peripheral nerves. It affects kidney tissue, and is excreted mainly through the urine, but also in the sweat and the saliva. As far as the gastro-intestinal sphere is concerned, it is thought to act most vigorously in those of lymphatic temperament. There is in some people a great tolerance for arsenic, and this more in children than in old people, who are usually very susceptible to its influence. Tolerance can be easily acquired, as is the case with the Styrian arsenic eaters. It is frequently used to improve the complexion and to prevent falling out of hair.

Symptoms.—A red or coated tongue, burning in the mouth, stomatitis, salivation. In this respect it is related to mercury, and it is of interest to observe that many modern physicians treat the primary stage of syphilis with arsenic. In the stomach there are pain, nausea, and vomiting, sometimes vomiting of blood; in the abdomen colic and distension. Diarrhœa of watery stools. There are anxiety, fever, and breathlessness, with the gastro-intestinal symptoms; the last symptom—breathlessness—being due to weakness of the heart muscles. Arsenic causes fatty degeneration of the heart. There are albuminuria and hæmaturia. It is interesting to note that in some cases the urine of people taking arsenic has been found to reduce Fehling's solution. Transient increase followed by loss of sexual power. Violent coryza, with headache, conjunctivitis, laryngitis, bronchitis, hæmoptysis. Precordial anxiety, small, rapid, thready pulse. Cold sweatings, cold extremities, weakness, fatigue, cachexia, wasting. Arsenic produces fever which may reach 103.5° F.; it is of three types—continuous, hectic, or intermittent. There are pains in the bones. Multiple neuritis, anæsthesia, analgesia, loss of reflexes, twitchings and, finally, paralysis. It stimulates leucocytic action in small doses, and the leucocytes have

an affinity for it, as have, consequently, the lymphatic glands and spleen. It has been known to cause abscesses in the lymphatic glands. Arsenic may cause almost any kind of dermatitis; it induces a continued hyperæmia of the deeper layers of the skin, and favors thickening of the epidermis, with formation of scales, horny growths, and even epithelium. It increases the natural pigmentation of the skin. The hair and nails become diseased and fall out. Dr. Schultz regards arsenic as a normal constituent of the skin. The mental state of arsenic is one of melancholy; there are weeping, sadness, and fear of death; anxiety, which is worse at night. All the symptoms are worse at night, and keep the patient restless and sleepless; drowsiness by day. There is marked periodicity in the symptoms of arsenic, especially the neuralgia, which affect chiefly the sciatic and trigeminal nerves. Symptoms may closely simulate cholera, viz., dryness of mouth, great thirst for small quantities and often; stools watery; collapse; small, fast, and irregular pulse. Dr. Schultz recommends arseniate of copper as being the best treatment of cholera. There is œdema of the skin, present anywhere, but most characteristically in the face. Arsenic influences the red blood corpuscles, first stimulating their increase and then diminishing them.

Dr. Wheeler reserved the discussion of the therapeutics of arsenic till the next lecture on December 14.

On Monday, December 14, Dr. Wheeler resumed the subject of arsenicum, and as in his last lecture he had dwelt mainly on the pathological effects of the drug, in this he discoursed on its therapeutic uses, and from an entirely homœopathic standpoint.

He began by enumerating the general features indicative of the drug, viz., marked periodicity; prostration; malignancy of affection which bore an analogy to profound septic poisoning; restlessness of body; anguish of mind, as from sense of some impending calamity; the character of the pains, which are burning, worse at rest, at night, especially from 1 to 3 a. m., from cold, and better from heat; thirst, for small quantities, frequently repeated.

These being the generalities, the particulars were next considered, and these are in most cases readily deduced from the generalities. Thus the fevers for which arsenicum is indicated are (1) intermittent fevers—chill not periodic to the exact hour, thirst for hot drinks, swelling of the spleen, cachexia; (2) hectic fevers—septic and of malignant aspect, as in tuberculosis; its influence on glandular tissue, would indicate it for tubercular glands. The arsenic fever is of septic type, the fever of chronic poisoning, in contrast with the transitory though violent fever of aconite.

Arsenicum inflames the mucous membranes, but the inflammations are not accompanied by much pus formation; the discharge is thin, watery, the mucous membrane dry, and with tendency to ulcerate. It also inflames serous membranes, but not so profoundly as the mucous membranes. It congests and inflames the lungs, and corresponds to chronic pneumonia. It causes a dyspnoea resembling that of asthma. It is suited to the hydrogenoid constitution, which is made worse by damp and cold and better by heat. According to Dr. Clarke, the dynamic antidote of arsenicum is opium.

Going through the schema, the indications for arsenic are as follows:

Mind.—Melancholy, sense of impending calamity, tendency to despair, even to suicide, restlessness, cannot keep still, irritable. General sensibility is increased (compare *hepar*).

Head.—Sense of emptiness and giddiness. Headaches are throbbing or pressing, and are often periodical. Headaches are relieved by cold; this is the only arsenicum symptom which is relieved by cold, and this fact causes an alternation of symptoms. When the headaches are better (being thus relieved) the other symptoms are worse, and vice versa.

Eyes.—Conjunctivitis, the discharge being thin and excoriating. Gritty feeling in the eye; corneal ulcers.

Nose.—Dryness and burning, with watery, excoriating discharge. The coryza is worse outdoors, better indoors.

Face.—Œdema, especially under the eyes and about lips; neuralgia.

Mouth.—The saliva tough and acrid, with metallic taste in mouth; mouth feels sore and burning; stomatitis; thirst.

Tongue.—Dry, clean and red. (*Thuja* also has a clean tongue with gastric complaints.)

Throat.—Burning and dry.

Stomach.—Loss of appetite, dislike of meat; eructations acrid; excessive nausea, going on to vomiting; ulceration with hæmatemesis and violent pains in the epigastrium; pain worse from pressure; sense of constriction and burning, gastritis.

Abdomen.—Enlarged spleen. The pains are chiefly on the left side; burning and flatulence; inflammation and ulceration of intestines, with colic and diarrhœa; tenesmus. The stools are not very copious, but frequent, and cause great prostration. Enteric fever; cholera.

Kidneys.—Inflamed kidneys; scanty urine, with blood and albumin; or it irritates them, merely causing polyuria. Used therefore in Bright's disease, and especially when the acute attack is subsiding into a chronic condition. Diabetes. (It is said that the urine in some cases of arsenic poisoning reduced Fehling's solution.)

Leucorrhœa.—Acrid.

Respiratory System.—Thin coryza; hoarseness, dryness, and burning in larynx and trachea; desire to clear away something that is not there. Cough worse at night, after drinking, and in cold air. The respiration is oppressed with sense of suffocation and scanty expectoration (indication for asthma). In phthisis the iodide of arsenic is generally used, the action of the iodine reinforcing the arsenic.

Heart.—Degenerated or fatty heart; chronic heart disease; dilated heart. Here also the iodide is more useful than arsenic alone.

Nerves.—Peripheral neuritis.

Skin.—All kinds of skin disease, but these should be prescribed for on the general symptoms, for unless these agree arsenic is not likely to do good. In epithelioma of the skin think of arsenic, especially the cacodylate of soda, which should be given in fairly large doses ($\frac{1}{4}$ grain *ter die* over extended periods).

Sleep.—Drowsiness; sleeping sickness; anæmia and pernicious anæmia.

Phosphorus and *thuja* follow arsenicum and complete its action. It follows well *aconite*, *bell.*, *cham.*, *ipœcac.*

Doses.—Dr. Wheeler recommends high dilutions to be given in neuralgia, skin and nerve diseases, he remarks that when arsenic controlled the movements of chorea when given in large doses, it did so by benumbing or paralysing the nerves. Low dilutions in gastric, intestinal and kidney diseases. All dilutions in respiratory diseases.

Compounds of Arsenic.—Arsen-iod. in fairly low dilutions in phthisis, heart disease, and persistent irritating discharges. Cacodylate of soda in material doses for malignant growths. Bromide of arsenic for diabetes and syphilis. Arseniate of antimony for emphysema and bronchitis.—*British Homœopathic Review*, January, 1909.

BACK TO THERAPEUTICS.—Once estranged from internal medication, the apostles of medicine evince a disposition to return to the therapeutic fold. Doctors of the Osler school lost their faith, and, of course, influenced others to be skeptical.

A renunciation of drugs permeated their literature. One who follows the journals and reads the newest books of the non-homœopathic branch of medicine recognizes the frank or implied confession of an error.

The homœopathic school can not lose confidence in remedies and be homœopathic. They may be almost anything else but they can not be homœopathic, for homœopathy is therapeutics. Therapeutics, of course, of a certain kind, but the system is purely, in its fundamentals, a system of therapeutics. It may be that some who have classified themselves as homœopaths have been tainted either by skepticism or hybridism.

We are disposed to think they have, but the rank and file are reasonably constant and consistent in practice. It must be a consolation to a man advanced in practice and experience to look back upon a career of consistency. Consistency is not by any means synonymous with merit, but consistent homœopathy is confessedly good, and, as we believe, the best therapeutics. Founded upon a theory that is stronger in the proofs of its reasonableness and wider in its possibilities, if studiously pursued, than ever, all that it requires is enthusiasm in its practice and assertiveness in its virtues. It should not be said of us that we have returned to, but that we have stayed by therapeutics.—*Univ. Hom. Observer*.

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ACONITE.—A. B., aet. 17 yrs.; dark, active, wiry; had driven six miles during the afternoon, facing a cold northwest wind. At 9 p. m. had a severe chill lasting 20 minutes; was seen at 10.45; temp. 104, pulse, 140; tightness of the chest and occasional dry hacking cough; very restless, thirsty, skin dry. Aconite 30 was given every half hour, with orders to discontinue as soon as the boy began to perspire. At 8 a. m., the temperature was 99.5, pulse, 110; tightness gone. The following day he seemed normal excepting a slight weakness.—Dr. Geo. Royal, in the *Iowa Homœopathic Journal*, February, 1909.

BRYONIA.—Miss E. B., school teacher, medium complexion; had a dry, hacking cough for three days. The cough was aggravated by going from a warm room into a cold room, but more from coming into a warm room out of a cold room. There had been a little tightness of the chest, but for the past four hours this had changed to sharp clutching pains, worse every

time she took a deep breath. The cough had become a little moister, and two or three times there had been a little expectoration streaked with blood. Temperature, 101; pulse, 110. There were a few crepitant rales on the left side, also a slight dulness in the apex. Gave bryonia 6th in water, five drops every two hours, and fixed the chest.

It took six days to clear up this case, the interval between the doses being increased so that she took only three doses the last 24 hours.—*Ibid.*

PHOSPHORUS.—A tall, thin, dark-haired traveling salesman, with a tubercular family history, age 39. Four days before I was called, had taken a ride out in the country. That evening had a chill followed soon by fever, thirst and a restless night for which he took bromo-quinine. On the following day he called the hotel doctor who diagnosed pneumonia and ordered more bromo-quinine and a hot whiskey sling. The third day more pain in the chest, bloody sputum and more quinine and whiskey. The next morning against the advice of his friend and hotel physician he took the train home. At 4 p. m. his temperature was 104, pulse 135, full and tense, the cough dry, but brought up bloody sputum, a sense of heaviness of the entire chest and a feeling of suffocation if he turned on left side. There was a dullness of the entire left lung. Gave a gr. powder of phosphorus 6th every two hours. Put on a cotton jacket and a hot water bottle to the affected side. Had the temperature of room kept at 60. For 36 hours there was no change, but the phos. was continued. For the next 48 hours the temperature dropped 2 degrees each day and the pulse to 108. The sputum was not so bright with blood, but thicker and more yellow. During the next 24 hours no medicine was given but the temperature and pulse continued their downward course. As there was a good deal of rattling in the lung I gave one dose of tartar emetic 3d and the case made an uneventful recovery.—*Ibid.*

FERRUM PHOS.—Mrs. H., a slight, light-complected married woman, mother of a babe 11 months old which she had just weaned. She was anæmic as shown by the paleness of the mucous membranes. She had exposed herself to the cold on her way from an evening reception and as she told me the next morning at 8 o'clock, "Could not get warm until about 5 a. m." I found the face flushed a bright red, the carotids throbbing, the pulse 154 soft, the temperature 102. There was not much cough and that had a loose edge to it. Under the stethoscope both lungs seemed to be seething with blood, congested. She received ferrum phos. 3d, a gr. every 20 minutes for six doses and then every hour. At 8 p. m. the storm had abated. The pulse and temperature both 100. The ferrum phos. was continued for four weeks for the anæmic condition, 3 gr. being given a half hour after each meal, when she was dismissed cured.—*Ibid.*

RUMEX CRISPUS.—John P., age 10. Had always been healthy up to five days previous to coming to my office. Family history also good. He came for relief from a dry, incessant, harrassing cough which seemed to be caused by constant tickling in the throat pit. There had developed a rawness of the larynx and trachea especially beneath the sternum. He said the cough was worse from cold air, but ceased if he covered up his head in bed. Rumex 6x cured.—*Ibid.*

MERCURIUS SOLUBILIS IN NASAL CATARRH.—Mercurius solubilis is found to be indicated in both acute and chronic cases. The acute cases are those in which the symptoms are acute manifestations of a chronic disorder. The symptoms include frequent sneezing, fluent corrosive discharge; in a short time, the nostrils become irritated by the acrid fluid so that it is painful to wipe the nose. The coryza is aggravated by the heat of the stove, even a moderately warm room being disagreeable to the patient. If the patient can stay out of doors he feels better and seems to recover more quickly from the attack. The chronic cases in which the remedy is useful are those in which there are frequent slight hemorrhages; tip of nose red; turbinated more or less swollen and puffed up. These cases are worse in wet, foggy weather and from the night air.—Dr. R. W. Homan, in the *Iowa Homœopathic Journal*, February, 1909.

KALI BICHROMICUM IN NASAL CATARRH.—In cases calling for kali bichromicum, we find puffiness and swelling of the mucous membrane. There is fluent acrid coryza relieved by warmth. Later in the acute and in the chronic cases, the discharge is tough, stringy and tenacious. The patient is aggravated by cold, and feels much better where it is warm. In old cases of chronic catarrh, we find this remedy indicated when there are hard plugs and crusts; wants to blow the nose, but there is no discharge; feeling of dryness, stiffness and weight; atrophy of tissue. It is a useful remedy when there is involvement of the frontal sinuses as evidenced by the pain and pressure at the root of the nose. Bones of the face sensitive and painful as if bruised. Ulceration is pronounced in the case of the nasal septum. Generally speaking, kali bichromicum is most useful in cases in which there is extension to the larynx and bronchi.—*Ibid.*

HYDRASTIS CANADENSIS IN NASAL CATARRH.—Hydrastis is indicated in acute cases with excoriating watery discharge with burning, smarting and rawness in the nose; scanty in the room, profuse out of doors. Air feels cold to the nose. As the case progresses, the secretion becomes thick, yellow and tenacious; much secretion from the posterior nares. Ozæna with ulceration; bloody purulent discharge. It should be preferred to kali bi., when the profuse tenacious secretion is distinctly yellow; and in cases where there is extension of the catarrhal process to the stomach. If the larynx and bronchi are affected give kali bi. Locally I use fluid hydrastis with glycerine for swabbing and with an alkaline fluid for spraying.—*Ibid.*

LEMNO MINOR IN NASAL CATARRH.—Special indications for its use are a putrid smell or loss of both smell and taste. Foulness of the mouth on rising in the morning, due apparently to the dropping of morbid secretion from the posterior nares. Drowsiness during the day and restless sleep at night. All symptoms aggravated in damp, rainy weather. It is indicated in hypertrophic rhinitis with the above symptoms. In cases having a glairy, mucoid post-nasal discharge it is a fine remedy. It is said to relieve stenosis in nasal polypi by shrinking the tumors, but does not in any way remove or destroy them.—*Ibid.*

STICTA PULMONARIA IN NASAL CATARRH.—This remedy has a pronounced action in certain catarrhal conditions of the nose and naso-pharynx when

there is extreme dryness from diminished secretion. Dull, heavy pressure in forehead and at root of the nose, with headache. Soreness on the eyeballs aggravated by motion. Constant desire to blow the nose, but no discharge. Influenza, nose stuffed up. General feeling of dulness and malaise. In acute coryza many cases may be aborted by sticta if we find this excessive dryness. In atrophic cases in addition to this excessive dryness, there is rapid formation of crusts and scabs due to the drying of secretions. It is indicated in the early stages of a coryza and the patient is usually past that stage before seeking relief from the physician. In chronic cases it is not prescribed as frequently as it should be.—*Ibid.*

SANGUINARIA NITRATE IN NASAL CATARRH.—This remedy is useful in acute obstructive colds with sneezing and profuse watery mucus with burning pain; rawness in the posterior nares. It is more frequently indicated in chronic cases. The mucous membrane of the posterior nares is red, rough and secreting much thick, yellow and at times bloody mucus, more or less rawness and burning. Raising of thick mucus from the larynx; must clear the throat before speaking or the voice will be husky. If the bronchial tubes are invaded, we find short hacking cough with expectoration of sweet, yellow mucus and feeling of pressure behind the sternum. This remedy is very useful in improving the voices of singers who are troubled with chronic nasal and laryngeal catarrh with the above symptoms.—*Ibid.*

EYE SYMPTOMS OF EUPATORIUM PERFOLIATUM.—Intolerance of light and soreness of the eyeballs, increased lachrymation; redness of the margins of the eyelids and profuse secretion.—Dr. Kopp in the *Homœopathic World*, February, 1909.

FAGOPYRUM AESCULENTUM: ITS FEVER SYMPTOMS.—The fever symptoms of this remedy are very marked; there is first a feeling of coldness all over the body, more especially of the feet and hands; a feeling of chilliness along the back. The patient feels hot and cold alternately. The hands and feet become cold, accompanied with a feverish heat in the head, especially in the morning on rising. Then we have a heat of an intense nature all through the body, most marked in the head (including the neck) and hands; there is itching of the skin and much restlessness. On retiring at night the patient is very hot and restless and soon afterwards a slight moisture breaks out all over the body. Occasionally a perspiration breaks out about three o'clock in the afternoon and continues for seven or eight hours. There is an aggravation of the fever about four o'clock in the afternoon. There is heat while there is a moisture over the hands, the pulse rises in frequency and the carotids throb. The face and neck burn; the hands though apparently cool, burn and there is a feeling of chill. There is an itching all over the body, and the tongue and fauces are of a scarlet color, and often swell. The symptoms are aggravated in the afternoon and evening, and ameliorated in the open air, by eating, drinking coffee and by motion.—*Ibid.*

ASCLEPIAS SYRICA IN URINARY TROUBLES.—*Asclepias syrica* has for its primary symptoms great increase in the amount of urine secreted, amounting to from two to six pints daily, its secondary symptoms being scanty urine accompanied with headache. The urine is of a pale color and of a lighter specific gravity than usual, and there is a burning pain in the urethra when urinating. The headache is of a nervous character, and is followed by profuse urination. The headache is also confined principally between the eyes, there being a sense of constriction across the forehead. There is also an unpleasant feeling, as if something sharp were being thrust through from one temple to the other. Vertigo is also sometimes present. *Asclepias syrica* is useful in dropsy either from suppressed perspiration, renal disease, heart disease, or scarlatinal nephritis. It is also a prime remedy in uræmia, which is preceded by profuse and afterwards by suppressed or scanty urine. It has the property of increasing the solid matters in the urine. It has for its analogues *asclepias tuberosa*, *apocynum cannabinum*, *dioscorea villosa*, *eupatorium perfoliatum*, *eupatorium purpureum*, and *kali carbonicum*.—*Ibid.*

CACTUS GRANDIFLORUS IN HEART DISEASE.—A symptom indicative of the administration of this remedy in heart disease is œdema of the left hand.—*Ibid*

ERIGERON CANADENSE IN HAEMORRHAGE.—This remedy is an analogue of *erecthites hieracefolius*. It has epistaxis of a bright red color; profuse bleeding from the gums or cavity of a tooth; hæmatemesis from rupture of the blood vessels or from ulceration; bloody and mucous at stools; hæmorrhage from the bowels, or from hæmorrhoids; uterine hæmorrhage, accompanied with great irritation of the bladder and rectum; menorrhagia accompanied by pains of a spasmodic character; incipient stage of phthisis pulmonalis where there is bloody expectoration.—*Ibid.*

OLEUM JECORIS ASELLI IN VERTIGO.—This remedy should be remembered in cases of attacks of vertigo during which everything turns black.—*Ibid.*

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

SOMAESTHETIC NEURASTHENIA.—Bianchi includes in this group, both *sexual and puberal neurasthenia*, which, although characterized, like the other varieties, by *headache, backache, topsalgias, hyperasthesias, parasthesias* and *weariness*, they are of different origin; and so we have that alongside these fundamental characteristics of *neurasthenia*, which we may regard as general, there co-exist, or even predominate in many cases, functional disturbances of single organs, which sometimes become so intense as to conceal the other disorders, and give place to what goes under the name of *partial neurasthenia*.

Sexual abuses, and above all misuse or nocturnal emissions, wear out the centre special to this function (impotence from exhaustion). The disorders of the sexual function are of the most varied character. Sometimes sexual desire is lacking, or it may be much more intense than is natural, but with little vigor. Erection is weak and insufficient, with rapid ejaculation *ante introitum*. Nocturnal pollutions and spermatorrhœa are frequent. There is great exhaustion, pain in lumbar region, irritability, lowering of the intellectual powers, and hypochondriasis, especially after more or less unsuccessful coitus or after pollution.

According to this authority, the *prolongation of sexual stimuli* is a notable cause of many cases of neurasthenia, but he considers the most potent cause of all, *onanism* during the period of greatest development of the body, and the time when the most intense mental labor is demanded in the schools. He claims that *paræsthesia* is especially common in women. They complain of tingling, shivering and sensation of insects crawling about their hair or over their skins. They have a feeling of cold or of heat, associated with an indefinite sense of discomfort in the calves of the legs. They suffer from heat in the face, a burning sensation in the head and scorching heat in hands and feet.

General or partial neurasthenia is frequently accompanied by *vaso-motor disturbances*. Many neurasthenic subjects are very prone to blush or turn pale under the slightest impression, and suffer from palpitation, tachycardia, arrhythmia, or even attacks of angina pectoris, asthma, oppression, or serious disturbances of digestion. Idleness and association are sometimes very complex causes of different forms of *neurasthenia*.—*Trattato di Psichiatria*.

PRIMARY CONGESTION OR HYPERTROPHY OF THE UTERUS.—Dr. J. Pique Sabater, of Barcelona, does not agree with those who only admit, aside of deviations and tumors, *inflammatory affections of the uterus*, and who give *a priori* an infectious origin to all diseases of the genital organs, and claim that congestion is a clinical modality or a stage of chronic metritis. In support of his views he quotes Siderey, Doleris and Richelot, who uphold the opinion of the old clinicians, and give *congestion* its former importance of well defined clinical individuality.

He refers to Scauzoni, who says: "Many states of *thickening of the womb* are thought to be inflammatory when in reality there is no inflammation in the strict sense of the word. They are disorders of nutrition, as we find in other organs, brought about by prolonged *venous hyperæmia*." He agrees with the above authorities, and believes that what produces *congestion* and *sclerosis of the womb* are physiological disorders, to be distinguished from chronic *metritis*, which is a morbid state. "Congestion does not mean metritis, for normally, once a month at least, and for several days, every woman while in her genital activity, suffers an *utero-ovarian congestion*, and that this congestion may become a favorable soil for infection, no one will doubt it, but it occurs here as in pulmonary congestion which never turns into pneumonia until the microbial element intervenes."

Dr. Sabater deals, then, with *congestive states of the uterus*, acute and chronic, which are not of infectious origin. "Etiology points out with perfection, both stages, for in the development of certain well-pronounced disorders and lesions accompanied by congestion, there is a total absence of infection." "There are women predisposed to *utero-ovarian congestion*, either by temperament, age, genital activity, heredity and mental state, but above all by *nervous arthritis* which can always be verified by urinary analysis during the intervals of menstruation. Such women could be called genito-mental, erotalgic or erotomaniac, and nymphomaniac. The first class of patients suffer a spiritual platonic aberration with the subject of their love; the others, whose morbid state comprises three periods unnecessary to mention here, feel an inconceivable amatory desire, which is material rather than psychical."

Nervous arthritis, according to Dr. Sabater, selects with preference the *genital organs*, and this on account of their predisposition to vascular breaks, and for being the seat of *hemorrhagic congestions*. What, if not a proof of direct cause, always exerts its especial action on the uterine annexes." Moreover, *arthritis*, being a dystrophia or nutritive aberration, with nervous and circulatory erethism and congestive tendency towards the pelvo-abdominal cavity, so rich in blood vessels and nerves we can well understand, not only the importance and the frequency of *uterine hemorrhages* but of the numerous connections which may become established between the sympathetic and cerebro-spinal nervous systems, explaining the almost constant bonds between the disorders of the genital apparatus and those of the urinary and digestive organs."

"In addition to the above about *arthritis*, we would bear in mind that *menstruation* is a physiological function provoking a congestion often violent enough to distend the Graafian vesicles, and should be considered the physiological type of *neuropathic hemorrhages*, for when congestion is protracted the bleeding continues. Hemorrhage, of course, can be prolonged by other causes, such as tight dresses and corsets, fatigue, sexual excitement, and particularly constipation, and if we take into consideration the powerful influence of age (*puberty, menopause*) in prolonged congestion, we could well call it a disease of evolution."

"The above does clearly explain the two constant, integral phenomena of congestion, namely *the hemorrhage and the pain*. Some authorities believe in the vesicular theory, others in vaso-motor influences, still others in

ruptures, atheromas, capillary aneurism, and some even in the preponderance of nervous action." "Without entering, however, into the analysis of these opinions, I do believe that this *congestion* may be caused by any of the influences mentioned, prolonging the normal, periodical hyperemia, and that the nervous element always plays an important part in the disorder, which may be called *neuro-vascular*."

"The onset is insidious, progressive and there is no elevation of the temperature above the menstrual period, during puberty, or during the menopause. The general symptoms are headache, gastralgia, dyspepsia, disuria, obstinate constipation, pain in the kidneys and lower abdomen, hysteralgia, despondency, obesity, and in general all the symptoms of *arthritic neuroism*."

"The *chief pathological change* found on palpation is tumefaction of the uterus, which is not as firm as in fibroma, more yielding, movable, and only painful if there is retroflexion. The uterine cavity becomes enlarged, from 11 to 12 centimetres, and shows thickness, a dilatation of its walls; the neck is characteristically pale or rose-color, hard and small; or bright-red uniformly congested, but never purple, as in *metritis of the neck*, acute or chronic and painless on touch, without incisions, ulcers, muco-pus, or leucorrhœa, but sometimes with hydrorrhœa. The annexes, inflamed parametrium, ovaries and tubes may be the seat of hysterical neuralgia, but otherwise they remain sound and painless."

"Its *physiological functionalism* reveals itself in the shape of abundant and prolonged menstruation, especially during puberty and the menopause, with ovarian and lumbar neuralgia, &c., or with catarrhal hypersecretion and glandular evolvment (*giant uterus*)."

"*Metritis* is differentiated by the initial fever, purulence and state of the neck, while *fibroma*, apart from its own symptoms, becomes known by its well-defined sclerotic changes and tumor formation." Dr. Sabater asserts, that as the clinical evolution of these lesions is of capital importance for the treatment, as well as for the correct diagnosis, it may be profitable to state that *infectious sclerosis* goes through a successive process of hypertrophy first and of atrophy and induration after, while in the *fibrous diathesis*, on the contrary, the evolution is continuously hypertropic, and we never observe, as in chronic metritis, any destruction of tissue."

Then he outlines the *hygiene* and *local treatment*, including kinesi-therapia, hydrotherapia, electrotherapia, and mineral waters. He condemns the abuse of vaginal injections, cauterization, tamponing, &c., which he claims have no curative virtue whatever, for in such cases, as we are considering, there is no infection, ulceration or even erosion. He speaks well of *glycerine* in the catarrhal forms with hydrorrhœa, relieving congestion by its osmotic property. He also indorses *dilatation of the neck* and *hot rectal irrigations*, but he is pessimistic about *pessaries* in cases of retroflexion, not only because they are not well supported, but on account of the poor results obtained.

Finally he invades the *homœopathic field*, recommending particularly: "*piscidis erythrina* and *viburnum prunifolium*, the fluid extracts, in doses of 15 to 20 drops daily, in cases of *active, painful menorrhagies*, as moderators and sedatives of the nervous system. *Hammamelis*, also in the fluid extract, 15 drops daily, *when con-*

gestion is followed by hemorrhage, on account of its vaso-constrictor quality and power to disperse hyperamia. *Calomel*, first and second trituration, in cases of *coprostatic dyspepsia with constipation*. *Pulsatilla*, 6. dilution in cases of *cardiac uterus, sluggish circulation* and *nocturnal aggravation* of the symptoms. *Platina*, 3 dilution, in *nymphomaniac patients*, with profuse menstruation of thick blood and painful sensitiveness of the genitals (*ovarian hystericalgia*). *Nux vomica*, 6 dilution, in *subjects of exaggerated morbidity*, who abuse condiments and suffer from dyspepsia, constipation, insomnia with erethism, and prolapsus uteri. *Thuja. oc.*, 3 decimal, in those suffering from general pains, *flatulent gastralgia after eating*, chiefly in left iliac fossa, perineum and anus."—*La Homeopatia Practica*.

UTERINE CONGESTION.—In a discussion on *uterine congestion*, Dr. Olive, of Barcelona, Spain, spoke well of hot vaginal injections of *chloride of sodium* (5-1000), and of *bicarbonate of soda*, stronger solution, for relieving congestion and cleaning the vagina thoroughly, but he prefers the *glycerin tampon*, for glycerin produces dehydration of the tissues, thus abating capillary congestion and modifying the circulation of the parts. He also mentioned *small injections of glycerine* into the neck of the womb, associated, if convenient, with *Calendula, Hydrastis, Belladonna* or *Hamamelis* according to indications; and he has used with success *Iodine*, in the same form, in scrofulous subjects with rebellious lesions. He even considers useful, in certain cases, the *intra-uterine injections* of the same remedies. But he states that before employing *topical applications*, it is important to ascertain if the *congestion is chronic or acute*, as in the latter case the uterine irritability is greater, as it can also be when fatigued, or from sexual excess.

"For the selection of the remedy the idiosyncrasy of the patient should be borne in mind. It is important to know if the subject of our treatment is *scrofulous* or *syphilitic, hepatic* or *cardiac*; or if she suffers from *constipation* and *hemorrhoids*, or *observes a bad regimen*."

"Among the important indicated remedies, I may mention *Actea rac.*, which is indicated in *uterine congestion* and in the *reflex nervous states of uterine affections*, more so than *Pulsatilla*. It is a remedy of right side affections, as indicated by Dr. Peiro, and has a well defined *trilogy with chronic metritis*, namely: female genital apparatus, cerebro-spinal nervous system and erratic rheumatism. *Collinsonia* is indicated in *chronic uterine infarction, with slight prolapsus, hemorrhoids and constipation*, as well as in metritis with great digestive debility, and in the reflex nervous pains of uterine affections. *Helonias* in cases of *extreme defection and atonic condition* of the whole muscular system. *Lilium tigris*, in cases of *secondary uterine congestion*, in chronic metritis, in prolapsus with anteversion and especially, when after labor the womb remains engorged, does not recover its normal size and becomes prolapsed. *Viburnum op.*, recommended by Dr. Abren, and *Chamomilla, Hamamelis* and *caulophyllum Origanum*, which have rendered good services in *uterine engorgements and congestions*.—*La Homeopatia Practica*.

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THE CURE OF CANCER OF THE UTERUS.

BY

H. I. OSTROM, M. D., NEW YORK CITY.

(Read before the King's County Society, December 8, 1908.)

THE scientific world, as well as the laity, are at present intensely interested in the discussion of two questions: the cure of tuberculosis, and the cure of cancer. Both diseases have been studied with the most painstaking care, and fidelity to strict scientific lines, and success has apparently rewarded the investigation of tuberculosis to such a degree that we seem to be on the threshold of grappling with the white plague, and we are encouraged to look forward to a not very distant time when we shall be able to so change the conditions of life as to remove tuberculosis from among the high mortality diseases.

With cancer the outlook is less cheering. We have not yet determined the origin of the disease. Our knowledge of pathology enables us to mark with considerable distinctness the histology that characterize carcinoma, and sarcoma, and to indicate the lines where the gross cellular alterations are found, but beyond a few generalizations we cannot say what causes the changes, nor how they so contaminate the system as to induce death. In this respect our knowledge of cancer has not advanced in like measure with the increase of the disease. We cannot control its development, we cannot certainly prevent its recurrence, and our treatment is still crude and far from exact.

Such being the discouraging status of cancer, the subject of my remarks this evening, "The Cure of Cancer of the Uterus,"

requires some explanation, for let me state at the outset, that I have nothing new to offer; I have not discovered a new cure, nor do I propose any changes in the operative technique for the removal of cancer of this organ.

I have without prejudice for or against, tried every method of cure for cancer of the uterus that has been brought to my knowledge with any show of authority, but neither internal, nor external treatment has succeeded in curing the *developed* disease—mark you, I lay emphasis on *developed*. If for a time progress has been arrested, I have soon awakened to the realization that the malignant forces have in that calm been gathering strength, and that as a matter of fact the system has become more powerfully within the grip of the smouldering disease during the lull in activity.

What, therefore, can we do? Internal medicine has failed, external applications arrest only temporarily the spreading disease, and so our *dernier ressort* becomes what must be called the opprobrium of the healing art,—removal of the offending part. We cannot cure with dynamic forces, but we must do something, and so we insult nature by mutilating her—cutting away the structures that we cannot restore to health. With what success can this be accomplished so far as a cure is concerned of cancer of the uterus? An analysis of this point, viz., the factors that contribute to operative success, especially concerns us now. Upon our ability to ascertain these, rests, I believe, our ability to cure this disease, for I find nothing except operative surgery that offers the least prospect of doing so. This position may seem radical in view of recent discoveries—radium, the X-ray, etc., but I assure you it is the result of experience, and has not been reached lightly, nor until after many failures to cure with less heroic measures. I therefore ask you, Should operative surgery be our *last* resource? Should we not rather adopt it as an early method of treatment?

It must be acknowledged that cancer generally, not in any special organ or location, is increasing. The reason for this is not as apparent as the fact, but I believe it to be due in great measure to modern methods of living, diet, and all conditions of artificial environment that reduce bodily resistance to the encroachment of disease. In general terms this may be said to favor the storage of the effete materials of metabolism, which being reabsorbed induce cell diseases, and in consequence

tissue degeneration. Here exists a predisposition to malignant cell life.

I do not find any sufficient proof that heredity plays more than an incidental part in the development of cancer. Any condition that contributes to the loss of balance between waste and repair may act as a predisposing cause, and in those families in which metabolism is defective, such a systemic condition obtains. In this sense a predisposition may be transmitted from parent to offspring, but to localize the disease there must be something definite, something that belongs especially to the subject in which it occurs. That factor in the development of cancer, is acquired.

It is a significant fact that cancer develops at points of the body where in the performance of natural functions mechanical injuries are liable to take place, and so, though there may not be a distinct history of trauma, we are generally safe in assuming that such may have occurred, even though not recorded. In point of fact, however, in a very large proportion of cases an injury has been known to precede the development of cancer, and while there are a few dissenting voices, the consensus of opinion regards trauma as an important etiological factor in localizing the disease. Especially is this true of cancer of the uterine cervix. Cancer of the fundus is not so clearly associated with local injury, but cases develop in uteri that have been subjected to mechanically induced abortion in which presumably the instrument used has reached, and injured the fundus.

Neither laceration of the cervix, nor mechanical abortions, however, are more frequent at the present day than they were a decade ago, and they alone, therefore, cannot enter into the cause of the increase of uterine cancer that we find throughout the civilized world.

If specific germs enter into the etiology of cancer, it is conceivable that local, or even widespread conditions, the outgrowth of social evolution, or of the evolution of disease, may obtain with us to-day, that favor their development, and add increased virulence to their life cycle.

Or, if cancer is contagious, the contagion may by reason of successive cultures have become more virulent, or better adapted to general dissemination than formerly.

I touch here only on the causes of cancer as they bear upon our ability to reach them, to direct living, hygiene, and what

not, in the hope of striking at the increase of the disease, and getting it under the control of scientific medicine; the several pathological hypotheses that have been advanced, the histological, and chemical explanations, save as the latter relates to hygiene, that have been put forward have no practical bearing upon the present question, and therefore need not detain us.

Agreeable with the position that if we cure cancer we must either prevent its development, or remove it by an operation, I will ask you to consider the essentials that make for successful treatment.

First, as to prevention. This will be concerned with general nutrition, and through its regulation, preventing the errors in metabolism that favor abnormal cell development, because as a matter of fact, no disease however virulent, can develop under conditions of normal body resistance. Prevention will also include reducing the necessary traumatism of parturition to a minimum, and restoring as early as practicable the integrity of the tissues so injured.

Second, as to operative treatment. This means nothing less than a complete removal of the local focus that we recognize as cancer. Just here lies the pith of the question. *Can we remove* cancer of the uterus by operative surgery? In other words, Is there a stage in the development of uterine cancer that is curable by hysterectomy; a stage of operative election? I believe there is. Let us inquire further into the matter..

However we may regard cancer, and by this I understand any malignant growth, either carcinoma or sarcoma, epithelial, or connective tissue neoplasms, we recognize a *pre-cancer* stage, and *pari-passu* a time when the error in cell development and growth begins, when the change from cells that contribute to the well being of the organism to cells that are a menace to its integrity, takes place. At this stage the cellular lawlessness is local. Systemic conditions which we have referred to may exist, that make departure from normal construction possible, but these, no matter how pronounced they may be, are not cancer, and cannot give rise to cancer in the absence of the determining force, or agent. I reiterate as the basis of my contention, that the actual and tangible manifestation of error in construction is in the beginning of its history entirely local, and confined to the spot at which it develops. It is then a circumscribed disease but one that sooner or later will disseminate its

special toxine, and set free its peculiar cells, and establish in other parts of its body its characteristic tissue building.

During this stage of purely local manifestation cancer of the uterus can be cured by operative surgery, and operative surgery offers our only present hope of cure. Why then should we delay operating, having before us the fallacy of other methods of treatment?

You will remember that I am speaking only of cancer of the uterus, of a neoplastic development in a location where the thorough application of destroying agents, chemicals, electricity, radium, the actual cautery, cannot be made. Superficial cancers may be amenable to such treatment, which is in principle one with excision, but the cure of cancer of the uterus cannot, I think, be accomplished by such measures.

The case stands thus: The local manifestation of malignancy is curable by operative surgery, the metabolic errors that make such a local development possible can only be corrected by dynamic forces, and hygiene.

Inasmuch as the complete removal of cancer of the uterus depends upon our recognition of its earliest manifestations, it is incumbent upon us to know these, for we cannot emphasize the fact too forcibly, that when once the process has spread beyond its initial manifestation, the avenues and channels of invasion are so numerous that there is little hope that any operative technique, however extensive, can reach every nidus of erroneous cell development. In other words, when it becomes necessary to go beyond the original focus of development, when we are obliged to attack the lymph channels, and lymphatic glands, the case is no longer within the legitimate limits of our art.

If the neoplastic process begins in the cervix, which is especially rich in lymphatics, the cell degeneration early spreads beyond its primary development and invades the pelvic glands. No operation can remove completely this vicious contamination, and invasion, for inasmuch as a gland may contain the essential cancer cells and give no evidence of outward disease, such a gland may easily, and quite justifiably not be included within the operative field, but remain a focus for future cancer development. For this reason I do not think the extensive operations that have been proposed, and performed for cancer of the uterus; operations that seek to include within the incised area all the diseased pelvic glands and structures, is either possible,

or justifiable. Such a procedure becomes a mutilation, for cleaning of the pelvis of its glands is a theoretical possibility, not a practical certainty. If we would cure cancer of the uterus after it has reached this stage, we must attack it by methods less crude than excision, we must bring to our assistance dynamic forces that seek out the weak structural points by reason of an especial elective affinity, destroying them, and at the same time stimulating phagocytosis. Such agents are not yet in our pharmacopœia.

Cancer attacking primarily the fundus presents a more favorable outlook than the cervical disease. There are not so many lymph channels in the body of the uterus, and the peritoneum presents a natural anatomical barrier, to the pathology spreading outside of the uterus. Therefore, the radical operation for cancer of the fundus, even though there may be extensive destruction of the uterine walls, may be undertaken with more defense, and with less mutilation than when the initial disease is in the cervix.

The fact that cancer returns in the vaginal scar after removal of the uterus is an additional reason why we should not follow the radical technique that includes "cleaning out the pelvis" in cases of extensive growth, for while in a measure such a development can be prevented by careful manipulation thus avoiding unnecessary mutilation of the operative field, and the consequent forcing of cancer cells into the surrounding tissues, there is no reason to believe that the vault of the vagina does not contain at that stage of development, cancer cells that lie beyond the possible line of excision. I do not wish to convey the impression that I would deny operation to even incurable cases of cancer of the uterus, but I do wish to place myself on record as not favorable to the very extensive dissections that have been proposed for the cure of this malady.

Palliative operations, curetting, cataphoresis, amputation of the lower segment of the uterus are not only justifiable, but at times obligatory upon us. They will accomplish all that the more severe, and radical operations can accomplish at far less expenditure of vitality, and strength.

How can we form a clinical picture of the stage of election, of the pre-cancer stage? and are there any symptoms that will indicate the existence of the local errors in cell development and arrangement which is not cancer, but upon which malignancy is almost certain to be grafted?

I have already referred to the minor part heredity probably plays in the development of cancer. Of much more significance in the cancer make up, is the age of the patient, her menstrual history, whether or not she has borne children, the record of of her menopause, these data have a direct relation to the development of cancer of the uterus, and if carefully considered will greatly assist in recognizing the pre-cancer stage, or the earliest stage of malignancy.

Cancer is essentially a disease of degeneration, and occurs most frequently in organs, or structures that are folding up their function, and that histologically are falling into decay. Decay in this sense does not mean disease, but is a perfectly normal, physiological change, and is entirely consistent with health.

Again, cancer of the uterus is more liable to develop in those who have borne children than in women who have not been pregnant. In this connection great importance is to be attached to a lacerated cervix, which, even if repaired may still in its scar tissue become a nidus for cell degeneration. I cannot here enter into a discussion of the changes from normal epithelial cells to the abnormal cell forms and arrangements that constitute malignancy, but we may say briefly that the boundary between different cellular forms, even when belonging to the same embryonal layer, as at the external os, are especially prone to such changes, and that the injury that constitutes a lacerated cervix, or the scar tissue that remains after its repair, plus the periodic changes belonging to menstrual life, or the cellular decay peculiar to the folding up function, are to be looked upon with apprehension, and held under suspicion until proved innocent.

There are very few subjective or objective symptoms characteristic of the early stages of uterine cancer. Pain, or local suffering of any kind are unfortunately conspicuous for their absence. The patients are usually, prior to the cancer toxæmia well nourished, and give no appearance of disease. One symptom, however, is always present, and while not certainly pathognomonic, is sufficiently constant to require the most thorough examination, and most searching analysis. I refer to any irregular sanguinous discharge from the uterus. The discharge may contain only a trace of blood, may be nothing more than a discoloration, but such a discharge should never be neg-

lected, especially when it is a part of the clinical history, which we have seen precedes the development of uterine cancer.

The discharge may occur as an irregular menstruation, and to establish the true significance of this a knowledge of the patient's normal menstrual history is essential. Or the period may recur with perfect regularity, and only a slight oozing be noticed in the mid-menstrual month. More characteristic still is the reappearance of a bloody discharge after the climacteric has passed, and ovulation has ceased; after the uterus has folded up its function, and thus begins again its activity. I believe this condition to indicate more clearly than any other the nature of the process that is going on in the uterus. It may not always mean malignancy. Senile endometritis, a submucous fibroid that has reached the surface of the uterine cavity, may bleed, but at the age when a post-climacteric bloody discharge takes place, such diseases of the uterus are not usual, and can almost be eliminated as etiological factors. Too strong emphasis cannot be laid upon our obligation to make all haste to acquaint ourselves with the cause of such a uterine discharge.

A word in passing as to our duty in the matter of educating women to note this early symptom of derangement, and to seek advice without delay. For various reasons not difficult to understand women disregard menstrual irregularities, or what we consider abnormal discharges from the genitals, and while I do not think it wise to unduly excite the alarm of a patient, or to suggest unnecessarily a suspicion of danger, I do believe that if women were taught the significance of irregular bloody discharges from the uterus, and made to feel their importance sufficiently to seek medical advice, we would in many instances be possessed of knowledge and data of inestimable value in recognizing the earliest signs of uterine cancer, and we would thus be able to avail ourselves of the most favorable time for its eradication, and cure.

My position regarding the therapy of the uterus is radical. Whatever is abnormal, prone as this organ is to malignant diseases, should be corrected. The lacerated cervix should be repaired. If the lower segment of the cervix is not healthy, and the os so extensively damaged as to invalidate the success of tracheloraphy; if there is hyperplasia of the glandular tissues, it should be amputated up to the internal os. If the endometrium is not healthy the uterus should be curetted, and if there is the least suspicion of malignancy in a patient whose age and

clinical history are favorable to the development of cancer, and the microscope shows even the beginning of a departure from normal cell development, and arrangement, temporizing is worse than useless, the entire diseased area should be removed without delay. At this time it can be done, later it will be impossible.

From my standpoint, I have already indicated the limitations of this operation. When the pathological process has spread outside of the uterus, it cannot be eradicated by any justifiable operation, and extensive operations looking to an excision of all the involved glands, and contiguous structures are useless, and unjustifiable mutilations. They can not cure, because they remove only a part of the neoplasm, and I believe such a technique may in some instances even accelerate the growth, and favor its reappearance by reason of the trauma it necessarily entails, and the very probable forcing of cancer cells into previously healthy structures.

A final word in reference to the choice of operation for cancer of the uterus. When complete enucleation of the disease can be done through the vagina, vaginal hysterectomy is the preferable procedure, but a cleaner technique can be carried out through a supra-pubic opening. The field for work is larger, and the entire pelvis, the uterus and adnexa—the latter should always be included in hysterectomy for cancer—are thus readily brought within sight, and touch. Then also, and this is an important point, the injury to the pelvic tissues, just where the disease is most liable to recur, is far and away greater through the vaginal, than through the abdominal route, and while it is true that a high incision, and this should be a liberal one even though the uterus is small, is added to the vaginal wound, for of course the vault of the vagina will be opened, this does not weigh against the advantages it affords for more thorough work.

Therefore, in cases of cancer of the uterus that seem to me to justify radical operative treatment, I give the preference to an abdomino-vaginal hysterectomy, and make my supra-pubic incision sufficiently free to afford unobstructed access to the pelvis and its structures, and in cases in which the pathological process has invaded peri-uterine structures, and in consequence do not seem to me to justify a radical operation, believing as I do that this is impossible, I adopt palliative treatment, or palliative operations.

MORAL DEGENERACY AND TREPHINING.

BY

H. L. NORTHROP, M. D., PHILADELPHIA, PA.

I KNOW I am not a neurologist, nor an alienist, but quite likely I am a fool, treading where angels fear to venture. However, even if I come to grief, my effort will give me an opportunity to report what to me was a very interesting and instructive case, and to express the belief that there is a large and growing field for the surgical treatment of altered mental functions, summed up, for the present under the title of moral degeneracy. "*Mens sana in corpore sano*" is just as true to-day as when uttered by Juvenal in the first century. Juvenal prayed for a sound mind in a sound body, and Dr. Johnson said that "every man is a rascal when he is ill." (I will paraphrase these words of the great moralist by saying that every man is ill when he is a rascal). Indeed, if we follow the example of the Great Physician we will heal the mind oftentimes in preference to the body. The miracles wrought by the scientific administration of drugs, the victories over accident and disease achieved by surgical operation, epoch-making though they be in importance and in value of results obtained, pale and grow dim before the science which will convert the sinner, cure the kleptomaniac, purge man's character of vice and debauchery, estrange Dr. Jekyll from Mr. Hyde, and restore a man to his inherited honor of "the apex of creation." You ask the question, "Can this be done?" History answers, "It has been done,"—and history repeats itself.

Do not accuse me of offering you a picture too rosy-hued, one too filmy and nebulous for realization. The millennium is not yet in sight and will not be precipitated by anything I may say in this humble contribution to medical literature. The fact remains that some moral degenerates can be morally bettered, or even cured, by a properly and intelligently applied surgical procedure. This has been made possible by a more or less accurate, practical knowledge of the location of man's mental functions, a part of the system of phrenology whose fundamental principles, widely accepted to-day, unite the anatomy and physiology of the cerebrum and cerebellum intimately and

harmoniously. Right here we should recognize the credit which belongs to pathology in determining and locating so many hitherto obscure cerebral functions and nervous phenomena. Injuries of the head, hemorrhages, tumors and inflammations within the cranial cavity, by resulting in altered sense and nerve performances, and whose exact location and extent were discovered by operation, or oftener by post mortem, have piled up a wealth of neurological data and thrown much light on both the anatomy and physiology of the whole nervous system. Even the opponents of phrenology must concede that the skull is subservient to the brain, that it is moulded upon and fitted to the brain, whose shape and size determine, aye, fix, the shape and size of the skull. This anatomical fact alone has helped materially to place cerebral localization upon its substantial basis to-day. In the majority of cases the lesion can be definitely located and is superficial, or cortical, and usually can be removed.

In many cases the pathological condition is shown to consist of pressure from depressed bone, pressure from an old, organized blood-clot now converted into a cyst occupying the cortex, or forming a mass of adhesions glueing the meninges to the cerebral surface. The pathology is, for the most part, quite simple and in many cases the naked-eye appearance of the lesion borders on the insignificant, it is so limited in its extent and in its degree. And yet, to my mind, such cases are as a rule the most favorable for the future.

The main facts set forth in the history of the case I wish to report are as follows:

T. L., male, age 48, had always been a man of good habits, was kind and devoted to his wife and children, and occupied a position of trust and responsibility in a large railroad company. He earned a good salary and was well thought of in the office of the company. He never drank whiskey or alcohol in any form. In May, 1891, a piece of heavy timber fell a distance of 16 feet from the upper structure of a float-bridge, striking him on the head and causing a contusion of the scalp and a hematoma in the upper frontal region, close to the middle line on the right side. He was unconscious for about 60 seconds, and was then driven home in a cab, refusing to go to a hospital. Besides the hematoma and contusion on the head, his right eye was made black and his lip and right foot were cut. His head injury did not bother him at all, his mind was perfectly clear

and he felt well, headwise, but the foot injury detained him in the house for about three weeks. He then returned to his position in the railroad office and remained there for twelve years, when he was discharged for drunkenness and for misuse of the company's funds. For several years of this twelve-year period these bad habits were developing until he reached the stage where he got drunk frequently and stayed away from home for many days at a time. Remember, he never drank before his accident; now he disposed of at least a quart of whiskey daily,—never less than a quart, he said, and sometimes it was three pints. And yet, he never got seriously or profoundly under the influence of this large quantity. At the same time he began to spend money lavishly and helped himself abundantly to the company's funds. His accounts were audited frequently and always found correct, but his trick was to have enough worthless, or bogus checks in the drawer to cover the amount which he had withdrawn and spent, on several occasions amounting to three or four thousand dollars.

After being discharged by the railroad company referred to he went to Cincinnati and easily secured a first class position with a railroad company there, but lost it in about a year by reason of his old habit of drink and misuse of the company's cash.

To quote his own words, given me after his operation: "I looked upon money and the spending of it as a thing which I was not responsible for; I spent it right and left, I might say I threw it away, and because I did not have enough of my own I helped myself to that which belonged to the company. And yet I did not think I was doing anything wrong,—I felt that everything would come out all right. I felt happy and contented; my chief pleasure was in spending money on lots of foolish things and in drinking whiskey. After drinking three pints of whiskey a day and retaining every bit of it (I never vomited) I would get up the next morning feeling well and without headache or gastric disturbance. I never felt any ill-effects from my excessive drinking. Most of this happened during the last three years before my operation."

Mr. L. further told me that when he was a lad he was a good climber, could climb roofs and ladders and never mind the height; before his accident his duties frequently called him out with railroad officials to walk upon high trestles and over bridges in process of construction. This he could do like a

steepie-jack. Since the accident, and long before he began his habit of drinking, he found that he had to refrain from walking on high places because of dizziness and the fear of falling. His accident had no effect whatever upon his memory: his mind was every bit as clear afterwards, and he could perform just as much mental labor, and do it just as easily, as he could before the accident. The patient himself summed up the effects of his head injury when he said that he had all of his faculties *except his sense of moral responsibility*.

His brothers, anxious to save Mr. L. from further disgrace and his family from the poorhouse, acquainted me with the facts in the case and asked my advice. After an interview with the patient, who sought relief gladly, I urged an operation but would promise little or nothing. I asked for Dr. John J. Tuller's advice, which was promptly obtained. Dr. Tuller also urged an operation and gave a favorable prognosis in which he stated that he believed the man's moral degeneracy was due directly to the head injury above referred to and that an operation should be performed to remove whatever lesion might be found affecting the upper part of the right frontal lobe.

On January 18, 1907, with Mr. L. under ether, I mapped out the fissure of Rolando upon the right side, and exposed the lower and middle thirds of the ascending frontal and adjacent frontal convolutions by means of a trephine and rongeur forceps. This area, remember, was indicated by Mr. L. as the one which received the injury. I did not find any depressed bone or peculiarity of the osseous wall at this point. The dura, however, was adherent to the inner table of the skull and all three meninges were glued together. The cerebral cortex appeared normal. I broke up the adhesions between the dura on the one hand and the arachnoid and pia on the other, stitched the flap of dura lightly in place and closed the wound in the scalp. This patient recovered from his operation without let or hindrance; he was discharged from the hospital two weeks later.

The result of this operation, up to the present time, has been satisfactory in every respect. The patient is now devoted to his wife and children, has drunk no whiskey and says the thought of taking a drink never enters his mind. In March, 1907, (two months after his operation) he returned to the employ of the same company for which he worked before his moral downfall, has been promoted twice with an increase of

salary each time, and he expects soon to be advanced to his old position.

The history of this case impresses me with this fact: the undoubted, direct effect of the head injury on this man's moral character. Never before given to drinking, thieving and to a total disregard for his responsibilities as a husband, a father, a brother, and a trusted employe, after the accident he let go, full sheet to the wind; he was on the crest of the wave of exaltation; he could not and did not appreciate the wrong in what he was doing. He had lost his sense of moral responsibility.

Hollander and Combe, of phrenological fame, locate the centers of exaltation, of hope and of optimism in the ascending frontal convolutions. Engel says that in the frontal lobes reside the centers of the highest intelligence; here thoughts originate. What we call quick perception, genius, talent, poetic feeling, narrow-mindedness, immoral character—all these dwell here. Here, also, in the lower third of these convolutions, are placed the motor centers which govern the muscles of expression including, of course, those which act upon the mouth and produce, by their contraction, the expressions of satisfaction and of pleasure, of cheerfulness and of joy. Such are the facial expressions one would expect to find on the countenance of an optimistic individual, and *they* are strongly allied to the mental state of hopefulness and exaltation which, in turn, might naturally be accompanied by an utter disregard for moral restraint and moral responsibility.

A close study of this subject should enable the physician or surgeon, when he meets with cases in which the chief or perhaps the only symptoms are psychical, and not physical, to localize the seat of the disease, or the cause of the symptoms, and to apply the proper treatment. Let us be physicians to the mind as well as to the body.

X-RAY TREATMENT OF EXOPHTHALMIC GOITER.—Dr. C. Thurston Holland reports great benefit, especially in regard to the immediate drop in the pulse rate and its reduction; the amelioration of the muscular tremors and general nervousness; the reduction of the circumference of the neck in some of the cases. The exposures were from ten minutes duration, the rays being pictured through two layers of thick boiler felt in order to prevent radio-dermatitis, and were applied on alternate sides of the neck, two or three times weekly, according to the effects noted.—*The Homœopath. Eye, Ear, and Th. Jour.*

CONCERNING SOME PAINFUL MANIFESTATIONS IN THE COURSE OF GONORRHŒA.

BY

ALFRED WANSTALL, M. D., BALTIMORE, MD.

(Read before the Maryland State Homœopathic Medical Society, November, 1908.)

MRS. ——— underwent her sixth confinement in ———, ———. She had been away from home for a long time with melancholia and was brought to the city to a lying-in-asylum for the confinement, returning to her retreat shortly after the birth. Her labor was normal and clean, and nothing was noted in her condition to excite suspicion of an infection. I learned from her subsequently that she had had much leucorrhœa after her return, and had received local treatment and that some organic preparation of silver had been applied locally. The probability is that she was infected after the birth of the baby and before returning to the retreat.

In ———, ———, 9 months after birth, at home having recovered her mind, she miscarried at the second or third month. The miscarriage was spontaneous and complete and without manual interference. During her stay in bed, her next to the youngest child, a girl of three years, was taken sick in the night. She vomited, had a severe convulsion and developed a high fever. When the child was seen in the morning she complained of nothing, had a moderately high temperature, complete anorexia and a very marked apathy. The fever continued unabated from day to day, bowels normal. Mouth and tongue parched and dry, lips dry and cracked. These symptoms and the continued apathy suggested typhoid fever. There had been malarial fever among the children of this family in the fall of 1903 and again in the spring of 1904. An examination of the blood at the present time for malarial organisms was negative. A total wet leucocyte count was not made but the smear showed no evidence of a hyper-leucocytosis. The differential count follows: Polynuclear neutrophils 60.9 per cent.; lymphocytes 27.6 per cent.; large mononuclears and transition forms 11 per cent.; no eosinophils and no mast cells. The specimen of blood sent to the health department was reported as giving a positive typhoid reaction. A sample of urine was obtained for the Diazo reaction, and I was surprised to find it very turbid from the presence of pus. There was a trace of al-

bumin but not more than was accounted for by the pus present. The unfiltered urine gave a moderately positive Diazo reaction and the filtered urine a less marked one. Pyuria is so uncommon in a child her age that I at once suspected gonorrhœa, and proceeded to examine the pus for gonococci. They were found abundantly both free and within pus cells. A local examination on the following day revealed a profuse vaginal discharge and much excoriation. Smears from the vulva showed gonococci in abundance both free and intercellular. The child recovered completely in from 14 to 17 days. Whether she had typhoid fever or suffered from a general toxemia from gonotoxin intoxication must remain undecided. I incline to the latter view on account of the character of the onset, the short duration of the attack and the absence of abdominal symptoms, notwithstanding the blood and urinary reactions. The purpose of introducing this case in this paper is to establish the existence of gonorrhœa in the house and the probability of the mother having been likewise infected.

To return to the mother. Before she was able to leave her bed after the miscarriage she was taken with a painful rigidity of the muscles of the right shoulder. At the same time she called my attention to a painful swelling, the size of a hen's egg, in the dorsal muscles between the spine and the border of the right scapula. To the touch it was not hard and very indefinitely defined especially at the borders where it shaded imperceptibly into the muscles. It looked much more circumscribed than it felt. It was painful to the touch but not markedly so. It was without heat or redness with no indication of containing pus or fluid. In the course of a few days a similar but less defined swelling appeared in the supra-scapular fossa, and from time to time similar and smaller indurations appeared in the muscles of the arm, between the elbow and shoulder. The induration in the back was persistent the others appearing and disappearing.

The character of the pain was characteristic, and was that of a brachialgia and myalgia. It involved the shoulder, neck and arm on the right side. Paroxysmal in character and of unusual severity, and especially worse at night when she was unable to keep her bed being compelled to walk about or sit down and nurse the arm. During the paroxysms in which she was seen during the day she supported the right elbow in the left hand as in a sling, walking about or sitting in a chair rocked

herself from side to side and moaning constantly. The paroxysms of pain were not of long duration, but more and less frequent. During the intervals she busied herself with her household duties and the numerous wants of her many children. During the attacks and at other times there was a marked hyperæsthesia, the lightest touch, even the contact of the clothes, was at times almost unbearable. While, as a rule, at the same time a firm touch was borne without flinching. The indurated spots in the muscles were not especially sensitive. At no time was there any elevation of temperature.

The case dragged along, the paroxysms gradually lessening in frequency and severity, and at the end of four weeks she was sufficiently improved to permit me to discontinue the house visits, but the patient was not completely recovered. While I was conscious that the case was unique in my experience it did not occur to me to associate it with the possibility of a gonorrhœal infection, in spite of the spontaneous miscarriage, and the presence of gonorrhœa in the house in the case of the little girl, until I read a paper by Norman MacLeod Harris, M. B., and Lewis W. Haskell, M. D., in *The John Hopkins Hospital Bulletin* for December, 1904, "Concerning a Case of Suppurative Myositis Caused by Micrococcus Gonorrhœæ (Neisser)."

There is much of interest in this paper, especially evidence showing that the gonococcus itself may be the sole active factor concerned in causing more or less severe general affections as well as when gonotoxin itself enters the circulation. These writers conclude: "It is proven that amongst other tissues of the body, the muscles can be the seat of secondary inflammatory metamorphoses occurring in the course of a gonorrhœal infection, caused on the one hand by the action of the intercellular toxins absorbed by the blood, and, on the other, by the direct implantation and action of the gonococci themselves, wherein may be found all grades of severity, from that of an easily resolving, painful induration to such an extensive degree of suppuration and necrosis as was furnished by our own case. From what we know, also, of the frequency of metastatic complications attendant on gonorrhœa, it would seem fair to assume that the chances are equal that the gonococci are quite as much concerned in these lesions as the absorbed toxins."

It is not the purpose of my paper to enter into the discussion of this question at all, but simply to direct attention to the clinical aspect of some painful manifestations in the course of this

disease. With this in view I cite from the paper just referred to a case by Ware because it presents clinical features in common with the case just reported and the one to follow this of Ware.

Ware's "patient came to him without giving any history of gonorrhœa, but complaining of severe pain around the right shoulder with inability to use the arm. Physical examination showed a tender indurated area about the size of a walnut in the post scapular muscles. Local treatment availed nothing, and then on further questioning patient mentioned a previous gonorrhœa, whilst his urine showed still a few threads containing typical gonococci. On cutting into the indurated area no pus was found, a bloody fluid only came away. Not suspecting gonococci, cultures were made on ordinary media at hand with entirely negative results, yet cover-slips showed micrococci decolorizing by Gram."

My second case follows: Mrs. —, the mother of one child aged nine years, had been home from the hospital for some weeks where she had undergone the extirpation of the gall bladder. In —, —, she was suddenly seized with great pain in and inability to use the right shoulder and arm. My attention was called to a swelling in the muscles of the back, on the right side, between the spine and the border of the scapula. It was first noticed a week or ten days before. The lump, about the size of a small hen's egg, was very perceptible to the sight and in some positions of the muscles it stood out boldly. To the touch it was rather soft, almost velvety, and shaded off insensibly into the surrounding muscular tissue. It was not especially sensitive to the touch, bearing considerable handling. It was without local redness or heat. On one occasion it was quite dark in color, but this was attributed to hemorrhage from the pinching of the previous day. The pain, which was the occasion of my being summoned, had only just appeared. There had been some fever the previous night, and there was a slight elevation of temperature the day I first saw her and on the following day, but thereafter both pulse and temperature remained normal.

The pain was located in the right shoulder and arm, and at times extended into the pectoral muscle and to the breast. The patient maintained a constant position on her back in bed. She could not lie on either side, and raising herself to a sitting position was only accomplished with difficulty on account of the

movement bringing on the paroxysms of pain. So great was the aggravation from movement that she could not be induced to go to the adjoining toilet to evacuate the bowels or empty the bladder. In the intervals between the paroxysms of pain there was such marked hyperesthesia that she could not bear the slightest touch, and even the contact of the sleeve of the night-gown was painful.

Other infiltrations not marked but plainly perceptible appeared from time to time in the muscles of the supra scapular fossa, in the arm (between the shoulder and the elbow), and in the pectoral muscle bordering on the axilla.

In answer to an inquiry the patient stated that she was suffering with an acute leucorrhœa which dated back a couple of weeks before the beginning of the pain. I resorted to the expedient of examining the urinary sediment for gonococci. The urine was free from albumin. Centrifuged there was abundant epithelia and some leucocytes. The centrifuged residue was spread on a slide, dried, and fixed with heat, flooded with distilled water to dissolve the salts, again dried, fixed and stained with alkaline methylen blue. Biscuit shaped diplococci of unusual size, staining deeply, were present in abundance all free.

The severe paroxysms of pain gradually subsided in the course of a couple of weeks, though the lump was still in the back as late as four weeks after the beginning of the trouble and was the place of origin of occasional attacks of pain.

REMARKS.—The close correspondence of the clinical features of these two cases left no doubt that they were etiologically identical.

The two following cases represent an entirely different type of clinical manifestation.

Mrs. —, a young married woman whose history included an operation for appendicitis before her marriage, a severe attack of cystitis after marriage, and one or more mild attacks during her pregnancy under my observation. No leucorrhœa nor history of any. She came to her first confinement in —. —. Delivery clean and normal. Her lying-in period lasted fourteen days, and to the bystander left nothing to be desired though I was conscious that it was not normal. Her appearance was not satisfactory, and the temperature and pulse were always a little above normal. About the tenth day there was a very sudden and severe attack of pelvic pain and a sudden

rise in the temperature, only to disappear as rapidly as it rose, and in twenty-four hours the patient had returned to her former condition. After getting up she dragged along for some weeks, not sick and not well, with vague pelvic symptoms and pains for which a local examination revealed no cause, although it was evident that she was infected. The previous attacks of cystitis excited the suspicion of a gonorrhœa but this was stoutly denied by the husband.

Her general health gradually improved and she went to her own home for a visit and to recuperate. While there she had her first attack of abdominal pain which is the occasion of her history being included in this report. She was vague in regard to the description of the attack, save that it was ushered in with vomiting, that the pain was located in the upper abdomen, and that she had received morphine hypodermically. She did not know whether it had been accompanied with fever, there had been no local soreness, and it had been followed by no ill effects. From her description it appeared to me to have been more severe and prolonged than any in which I afterward saw her. After her return I saw her in several of these attacks of pain. The attack was ushered in with vomiting, the pain was in the right hypochondriac region, was of great severity, and resembled in character and location an attack of acute cholecystitis or so-called gall-stone colic, with the exception, however, of its subsequent course. There was no local soreness or tenderness. During and after the attack the pulse and temperature remained normal. The pain passed off with the effect of the morphine which its acute severity made necessary. On the following day the patient was in her usual health. There were a number of these attacks at intervals of days and weeks gradually decreasing in frequency and severity.

Following a period of fair health, ———, ———, six months after confinement, pelvic pain set in with a rise in temperature. Both tubes were plainly palpable and very sensitive to the touch, showing the nature of the pelvic trouble. There was no leucorrhœa, but the urinary sediment which consisted of epithelia and some pus was examined for gonococci, and they were found in moderate profusion. The attack was sharp and increasing so rapidly that a surgical consultation was held. A little delay was counseled when the attack began to abate, and it subsided as rapidly as it had risen. This patient remains in

good health, though at times is subject to pelvic pain, and she has remained sterile.

REMARKS.—Cases of this kind may become embarrassing to the physician. If the cause of the infection is unknown, or must be concealed, he may be under the suspicion of having been responsible for it by some neglect of his own.

The following case is taken from my paper on "Acute Diffuse Gonococcus Peritonitis," read before this Society in October, 1900, and published in the *HAHNEMANNIAN MONTHLY* for May, 1902. It was not reported in that paper as a case of peritonitis, but was observed after the paper had been written and was appended as an interesting related clinical observation.

Without going into any more detail than is necessary for my present purpose regarding this case it related to a lady who had contracted her second marriage in June, 1900. On the 14th of August she returned to the city for treatment for a granular urethritis which had existed for three weeks and for which she had been treated unsuccessfully. That it was gonorrhœal could not be positively determined from the microscopic findings. However, her husband appeared a week later, he had had gonorrhœa and supposed himself cured. To make assurance doubly sure, before marrying he consulted an eminent specialist and received his written opinion that he was free from gonorrhœa. When I saw him he had a barely perceptible urethral discharge which had reappeared after his marriage, and in which gonococci were present both free and within pus corpuscles. This fact left no doubt as to the nature of his wife's trouble although there had been no history of a leucorrhœa.

Regarding this lady's subsequent symptoms. "The urethral trouble was practically well, the tissues more normal in appearance; bleeding and frequent and painful urination stopped before her menses came on, on the 30th day of August. On the 31st, the second day of her menstrual flow, she was attacked with pain in the pit of the stomach; the pain was severe and radiated over both hypochondriac regions. The pain was continuous, but with paroxysms of aggravation, and the regions mentioned sensitive and sore to the touch. The pulse was normal, the temperature not taken. No gastric or intestinal disturbance, and no other significant symptoms except that she was compelled to lie down all the time, and on her back, with both thighs flexed on the abdomen. The pain persisted through this and the following day in greater and less intensity, passing

off gradually during the night. On the 3d of September she was practically well, her menses also ceasing on this day.

"On September 4th, at 5 o'clock A. M., the pain again set in in the epigastric region, and radiating over both hypochondriac regions as before, but now extending to the back and over the abdomen generally. Abdomen in general sore to the touch, but no distention nor protective spasm. Patient lies on her back with both thighs flexed on the abdomen. Later in the day the pain increased in intensity, and the patient vomited. Pulse normal, temperature normal. No other bodily disturbance, the vomiting undoubtedly from the pain; otherwise, stomach and bowels normal. The patient lying in absolute quiet on her side, with the thighs flexed on the abdomen, and her arms folded around her legs. It is apparent that she is in great pain. The pain had not abated in severity in the early evening, but at 10 o'clock she thought it was decreasing; by midnight she slept; and on the following day, September 5th, she was entirely relieved, and two days later felt well enough to accompany her husband home.

"She has returned to me at intervals since; has had two or three additional less severe attacks of pain, and a rather profuse leucorrhœa, in which it has not been possible to positively identify gonococci. There is no palpable evidence of tubal disease, and while her urethral mucous membrane is still somewhat granular, she is free from bleeding, and urination is normal in frequency and without pain."

REMARKS.—Both cases of gonococcus peritonitis reported in the paper just referred to had joint trouble. In the first case "the right arm became useless from intense pain, spontaneous and paroxysmal in character, in the shoulder joint. There was no swelling, heat or redness of the shoulder, but it was absolutely intolerant of the slightest touch or motion." In the second case, "The right arm became entirely useless from pain in the shoulder joint. There was neither heat, redness nor swelling of the shoulder, but it was exquisitely sensitive to either touch or motion, and the seat of frequent paroxysms of spontaneous pain, so violent that the patient's cries could be heard by the neighbors." It is noteworthy that these cases and the two cases in the early part of this paper, as well as Ware's case were right sided; as was also the case of the new born child of the second peritonitis case, this baby having lost the use of the right arm from an inflammatory swelling of the right shoulder

following gonorrhœal ophthalmia. This right sidedness may have been a simple coincidence or it may be characteristic. These cases represent three distinct types of trouble, in the myositis cases the manifestation was essentially muscular, in the peritonitis cases it was markedly arthritic, all of these cases having very little or no evidence of inflammatory action, and disproportionate pain, while in the case of the infant with ophthalmia there was a large inflammatory exudation with disproportionate absence of pain either spontaneous or from touch or motion. In all the cases, including the abdominal ones, the character of the pain was markedly neuralgic, paroxysmal and spontaneous, with either little or absolutely no objective cause for the painful paroxysms. The diagnosis of these cases, from an etiological standpoint, is of great importance, because the prognosis is always more favorable if the gonococcus can be established as the etiological factor. And in cases of peritonitis, or others, in which an operation might seem advisable, the gonorrhœal origin of the trouble would justify a more conservative attitude.

THE OBSERVATION OF SYMPTOMS AND SIGNS OF DISEASE.

BY

EDUARDO FORNIAS, M. D.

(Read before the Nurses of the Women's Homœopathic Hospital.)

It would be almost impossible to give you a comprehensive idea of the *indicative value and meaning of symptoms*, without a previous elucidation of the aims of the physician in observing them and of your co-operation in the accomplishment of his task. Consequently, let me just at the start, impress upon your mind, that symptoms, like signs, are manifestations of disease, revealing both, functional and organic disorders, and that it is by their aggregate and succession an illness is known and understood, and its probable course, duration, and termination foretold. But you should likewise remember that with us the study goes still further. It is the *complex of symptoms or syndromes* that gives us the key for the successful application of the needed remedy, and hence our observations as to the relative importance of each individual symptom or group of symptoms present in any case of disease, must be made with a deeper

insight and constancy than our opponents need employ. In fact, a lucid judgment on the variations of the patient from day to day—nay, I may say, from hour to hour, is an imperative necessity under a system which deals exclusively with the patient and not with the variable or inconstant nosological groupings of the books. The nosographer deals with generalizations, the symptomatographer with the individual. As the observation of the physician cannot be constantly directed to a single case, you can obviously see, the valuable aid a conscientious, observing nurse may render, and if you possess the necessary stock of knowledge to make your co-operation supreme, and the tact such occasions demand, then your future is made.

And in order that you may understand correctly what I consider your stock of knowledge should be, I must point out to you those branches of clinical knowledge in which your opportune observation and discernment are so necessary and important.

Etiology, Symptomatology and Diagnosis form the tripod upon which the task of the clinician rests. *Etiology* because it deals with the causes capable of deranging the functions or altering the structure or tissues of the human body, be these internal or external, local or general, predisposing or exciting, proximate or remote, mechanical or chemical, etc. Moreover, *secondary causes* are those inducing mischief in the system and which are themselves called into existence as the result of existing disease. The most important *predisposing causes of disease* are: debilitating influences, excitement, previous disease, hereditary constitution, temperament, habits, intemperance, vice and improper or insufficient nourishment, as well as age, sex, occupation and climate. Among the *chief exciting causes* I may mention: Mechanical or chemical agencies, ingesta, bodily exertion, overwork, mental emotion, loss or suppression of secretions and excretions, uncleanness, defective ventilation and drainage, sudden changes of temperature, exposure, parasitic plants and animals, and bacteria and its products.

In considering the importance of the various causes of disease individually, the student, of course, should also remember that disease may be induced by only one, or by several acting together or in succession, and that they are modified by several circumstances but especially by the resisting forces of the system, or the natural defences of the organism, which in a

healthy state are sufficient to check the influence of many circumstances that would otherwise give rise to disordered action.

Symptomatology because it inquires into, studies and interprets the *symptoms and signs of disease*. It is the systematic discussion of symptoms and for obvious reasons, our most valuable knowledge for treatment. In fact, we may dare to assert that in many cases under the absolute domain of therapeutics we can afford to make a *wrong diagnosis* without compromising our success in the cure. Moreover, *symptomatology* does not only lead us to a *correct diagnosis and prognosis*, but to the *selection of the remedy* according to our law of cure.

Diagnosis, because it points out and makes clear the existence, seat, nature, and the simple and complex stages of diseases, as well as the degree of evolution they may have attained, and the probable course and termination of the morbid process. It establishes a comparative parallel of two diseases more or less analogous to each other. It serves to satisfy inquiring friends as to the probable issue of the malady, to report cases with system, to make correct statistics, to comply with sanitary laws, to protect the community from infection, and finally to determine whether or not, a given case of disease is absolutely under the control of therapeutics, or subordinate to surgery or other branch of medicine.

Now, ladies, your duties are embodied in this Trinity of Medical Knowledge, where you are often called upon to furnish valuable data for strict individualization and proper selection of the means needed to effect a cure. Knowing the agents or causes which may interfere with the treatment or complicate the disease, you are in a position to avoid them and protect your patient. Knowing the origin and the meaning of symptoms under different conditions, you will be able to report them at the proper time and meet emergencies intelligently and promptly. Knowing thoroughly the natural history of every disease and its issue, the extent to which diseases are influenced by age, sex, constitution and other etiological factors, and judging carefully on the variations of the patient, from hour to hour or from day to day, as the case may allow it, your aid to the physician will be invaluable. To attain these important ends, however, *your work at the bedside must be a work of observation and just interpretation of the phenomena developed during the course of the disease and the absence of the attending physician*. Knowledge is not sufficient, it is rigorous

observation and acute discernment that counts in nursing the sick, and as I have said on a former occasion in this institution—the most successful nurse is the one who pays attention to details and does not overlook even trivial phenomena.

From what I have stated, then, you must have perceived that the supreme elements of decision, in all matters relating to *diagnosis* and *treatment*, are the symptoms. More than thirty years ago, I think, one of our opponents emphatically asserted, that without a correct knowledge of *symptomatology*,—the science which treats of the symptoms and signs of disease—we can know but little of the art of Medicine; since a thorough acquaintance with the structural and functional disorders to which the human body is liable, essentially comprises a recognition of existing symptoms and signs, a proper appreciation of their value, source, antecedents, causes, relations and connections with each other, and the results which may be expected to flow from them singly or in combination.

With this introduction, permit me to proceed with the subject-matter of this lecture: Lord Bacon asserts that there are only two especial sources for real increase of knowledge, namely, *observation* and *experiment*, which he insists are but questionings of Nature in respect of specific matters. "To cultivate the faculty of observation must then be the first duty of those who would excel in any scientific pursuit," and to none is this cultivation more necessary than to the nurse. "Without the habit of correct observation, no one can ever excel or be successful in his profession." "Observation, however, does not consist in the mere habitual sights of objects in a kind of vague looking on, so to speak, but in the power of comparing the known with the unknown, of contrasting the similar and dissimilar, of bringing into adaptation similar phenomena, in justly appreciating the connection between cause and effect, the sequence of events, and in estimating at their correct value established facts."

Of course, the acquisition of knowledge, as the above authority has said, can only be gradual. Just as there is no royal road to learning, so there is no rapid method of gaining experience; and he who wishes to excel, I repeat, must not only work assiduously, but must be careful that he toils in the right direction. The tendency at the present day is to jump at conclusions upon insufficient data—that is to be content with superficial observation. Although at first the difficulties in the way

of observing correctly may appear insurmountable, yet as the habit is daily encouraged will the path become clear, until at last what was at first a labor becomes a matter of almost routine practice to you.

Therefore, it is evident, that the most important part of a nurse's knowledge and training is gained at the bedside, not from books and lectures, but by unremitting observation and study. In the wards of this hospital every diversity of disease, every variety of injury can be carefully observed and investigated in their various stages, as well as the modifications produced upon these ailments by the correct use of our remedial agents. In order, however, that the observation of disease may be profitable, it must be complete. It will be useless unless the malady be watched during its whole course, the symptoms noted as they appear and the effects of medicines carefully observed, until the case terminates in recovery or death. The *termination of a case* is especially instructive, and not the less so when the result is death, since the way in which the patient succumbed may be recognized and the observer learns to guard against such an event in similar future cases. The student has then, at the outset of his career, to collect facts by the simple use of his senses, which should be carefully trained to an exact appreciation of impressions made upon them. He should describe what he sees and hears in the simplest possible language, and take nothing for granted, nothing on hearsay, but see and examine for himself. He may leave the explanation of phenomena for a while until he has acquired the habit of accurate observation. Unless the student acquire the faculty of correct observation, and use it for himself, he will only collect data which are unreliable, and his reasoning thereon will necessarily lead him utterly astray. He cannot supply the deficiency from books or borrow it from others. You may learn the entire practice of medicine by heart from books, and yet be unable to know the meaning of vomiting in a child or in an adult, or distinguish gastric from cerebral vomiting, for example, when called upon to apply your theoretical knowledge in actual practice. Valuable therefore, and indeed indispensable, as is the assistance to be derived from a careful study of the text books at your disposal, yet these especial books must be regarded principally, if not solely, as guides, that is to say, as intended to smooth the difficulties you, as observers, may encounter, but by no means calculated to do away with the labor of self obser-

vation, for without practical experience all requirements are of no avail.

As the observation here referred to, is chiefly of *symptoms and signs of disease*, it may be profitably asked, What is a *symptom*, and in what does it differ from a *sign*? Sir T. Watson defines *symptoms* as follows: "Everything or circumstance happening in the body of a sick person, and capable of being perceived by himself or by others, which can be made to assist our judgment concerning the seat or the nature of the disease, its probable cause and termination, or its proper treatment; every such thing or circumstance is a *symptom*." "It thus appears that symptoms are obvious to all persons alike, to the educated as to the uneducated, in this respect differing from the *signs of disease*, which are, generally speaking, intelligible to the medical eye alone. *Signs*, indeed, are for the most part, deduced from *symptoms*, either from one symptom or from a combination of symptoms. Thus, *cough* is a *symptom* of many laryngeal and thoracic affections, but combined with a *whooping noise* during inspiration, it becomes a *sign*." *Signs* have been termed *physical symptoms*. Symptoms, at one time, was a term generally used in the same sense as sign; but with many, perhaps most of the present time, the former signifies a functional or vital phenomena of disease, while the latter is applied to that which is more directly physical, and hence the expressions, *functional or vital phenomena of disease*, in contradiction to the *physical signs*, which are afforded by *palpation, percussion, auscultation*, etc. So, then, while any change perceptible to the senses in any organ or function, which is connected with a morbid influence is a symptom, any past or present circumstance, afforded by the examination of the patient, or of matters concerning him, whence a conclusion may be drawn regarding the nature and seat of his disease, is a sign.

Of course, *symptoms and signs* originate in all the organs and tissues of the body and are also afforded by the countenance, and the general appearance and condition of the system. Some arise from the organs and functions of digestion, others from the functions of respiration and circulation, and still others are connected with urinary and sexual organs, and derived from the nervous system. Centers to which a good observer must direct his attention.

Symptoms vary in significance and value according to the stage of the disease in which they appeared, for they may in-

dicating the approach of known maladies, accompany morbid states through their complete evolution, be the result of complications, point out the turning point of a malady, and even precede diseases, as *commemoratives*. Those phenomena which precede the disease have been called also *anamnestic*; those which accompany it are termed *diagnostic*, if they reveal the nature and seat of the affection, and *prognostic*, when they indicate its probable course and termination. *Present or actual signs of disease* are abnormal phenomena felt by the patient or perceived by the physician, existing at the same time with the disease. They are destined to disappear with the malady; they are engendered by the lesions which constitute them; they show directly the derangement of the organ affected or of the apparatus involved, and they are the leading elements of *physical diagnosis*. The *anamnestic* or *commemorative signs*, on the other hand, are not inherent to the disease present, but anterior to its development.

Often the physician has no other knowledge to be guided by than that obtained by the recital of the patient, or of the relatives living with him, and he may be compelled to insist upon the data needed, and even aid them to remember past illnesses or accidents, or urge them to furnish information as to *age, habits, heredity, occupation*, etc. Sometimes, however, he easily detects the *stigmata* which *syphilis, scrofulosis, rickets, malnutrition* and *intemperance* have impressed upon the economy, and which only the medical eye can interpret, notwithstanding the silence and even denials of some patients. But in all cases, of course, the *commemorative* have less value than the *actual signs of disease*.

It follows, then, from what I have stated to you, that the terms *signs and symptoms* are not synonymous. A *symptom*, let me repeat, is the manifestation of an organic derangement with which it is in correlation, be this derangement, functional, felt only by the patient, or, physical, perceived by the physician. But, a *symptom* does not become a *sign of disease*, until it is interpreted by the one able to appreciate its indication and reach its cause. The *symptom* is under the domain of the senses, and can only be detected while it exists; the *sign*, on the other hand, is related to the judgment, it is a conclusion arrived at by the spirit of the symptoms observed or by the anamnestic circumstances. Symptoms should not be confounded with actual signs until reasoning has judged of their value.

Hence, all symptoms are signs, because the latter could not exist without the former, but all signs are not symptoms.

It may not be unprofitable to mention that in the study of *semiology*, every circumstance which is at all characteristic, is important, and that the form and violence of the symptoms, the particular order in which they appear, the stage of the disease in which they prevail, if appreciable by the physician or felt by the patient only, have led to various *divisions of symptoms*, which may not be of much practical use to you, but with which, I think, you should be acquainted. No one can gainsay that symptoms have different meaning under different circumstances, and conditions, under different ages and sex, and you should bear always in mind that the same symptom has more the one origin, origin which must be known to appreciate its value, to decide the choice of the remedy, and to ascertain the gravity of a case and its probable course and termination. Moreover, you should know that a *symptom* is occasionally the prelude of a known disease (*premonitory*); that, sometimes, it characterizes the disease and establishes the diagnosis (*pathognomonic*); that often it has only an accessory value and consequently not essential to the disease (*concomitant*); that, in some instances it affects a part when some other part is the seat of the disease proper (*sympathetic*); or that it may indicate a disorder of the whole organism (*constitutional*). Again, a symptom is called *direct*, when it is directly caused by a disease; *indirect*, when it points to a condition that may or may not be due to a particular disease or lesion; and *local*, one that is due to a local disease or a particular lesion.

But, I have left for the last, two *varieties of symptoms* of great importance to those who treat the patient and not the disease, viz., *subjective and objective symptoms*. A *subjective symptom* is one perceived by the patient alone, and through him and his description appreciable to the physician, while an *objective symptom* is one always obvious to the senses of the observer.

In *Homœopathy*, contrary to what it happens in *Allopathy*, *subjective symptoms* are duly appreciated, for it is by them that we often are enabled to select the curative remedy. Of course, I do not mean that we should subordinate the characteristic to the contingent, but no one can deny, that when in doubt as to the best suitable remedy among others of similar effects, the *sensations of the patient* give us frequently the key to the all-

important problem of selection, as no *homœopathic individualization of drugs* is possible without taking into account the sensations of the patients. It is interesting to notice, how one of our opponents so lucidly refers to this subject: Dr. Alfred T. Schofield (*Force of Mind*), states that "every thoughtful physician knows the real illuminating value of letting a patient describe his symptoms in his own language, however quaint; and how he learns thereby more of the inner working of the disease than the most cunning phrases which he puts into the patient's mouth."

Objective symptoms, on the other hand, are in all schools of medicine the favorite centers of observation; they seem to appeal more to the eye of the ordinary practitioner, who, if allopathic, has been taught to place but little reliance on *subjective symptoms*; and yet, objective, like subjective symptoms, are sometimes ephemeral, accidental, and meaningless, hence the necessity of a trained eye to estimate their relative value. Both may have a place in a syndrome, or occur in succeeding syndromes; sometimes they appear conjointly or separate at the outset of a disease, and increase in intensity up to the crisis, or they may disappear from the prodromal stage to return before the crisis, complicating or not the case. They may also intermit or remit, be periodical, progressive, and more or less permanent.

Objective symptoms, however, are of prime importance in early childhood, in the insane, and in those unable to express their suffering, either on account of illness, or when deaf and dumb.

In an institution, like this, where hundreds of children are treated yearly, the *objective symptoms* become very important, for we must depend almost entirely on them, with this class of patients. Mothers and relatives, as you know, render poor aid to the physician, hence the observation of the nurse becomes here paramount. But you must adopt a systematic method of examination and even be able to interpret as accurately as possible, the signs and symptoms thereby elicited, as otherwise your efforts will be defective. There can be no question of the necessity of examining all children in as systematic a manner as possible; only so will your statements of facts be reliable and your general opinion of the progress of the case from day to day worthy of consideration. In adult patients this is as a rule

not difficult, and by the constant use of a good method the student is enabled at a later period to examine his patients completely and yet so rapidly as not to inconvenience them. In the child, however, matters are somewhat different. Here no hard and fast scheme will suit all cases, and if the nurse be not ever on the alert to carry out any part of her examination and report it at the moment most favorable for it, she will certainly find that the doctor's visit, for the time at least, will be deprived of valuable information. An infant, or a child who does not speak yet comprehensively expresses his sufferings by crying and gestures, oftentimes by posture, and you should be able to know how to interpret them in order to ascertain actual conditions temporarily under your care. In no condition does the observation and tact of a nurse become so important as in the care of children, at least, under the age of six or seven years. There is no question that the influence of disease varies not only with sex, but with age. In *children* you will be liable to meet with *congenital debility* or *malnutrition* (bottle fed), and especially contend with an excitable nervous system, but with a little tact and perseverance you will often soothe a frightened child, and even prevent spasms. Tact, perseverance, patience and gentleness are indispensable factors in the *nursing of children*. Frequently a tactful and gentle examination, including the outlets of the body, made with motherly and solicitous hands, will reveal many trivial causes of alarm and vigil. I have seen an ill-placed pin in a child's dress, and an unclean crib give rise to a great deal of unnecessary distress and alarm. If the child be sleeping, opportunity should be taken to notice the rate and rhythms of the respiration, the position of the body, to count the pulse, and, if possible, to take the temperature. Further, any prominent symptom or complaint may entirely alter the course of your examination, and demand opportune report. In all examinations exposure of any kind is to be avoided, and *feeding*, whether natural or artificial, requires special knowledge, which you should endeavor to acquire, if only to combat error wherever found. I could not pass by the subject of artificial feeding without impressing upon your mind the difficulties you will meet with in families unable to retain a physician for a long time and where your advice will be frequently disregarded. *Condensed milk* is frequently employed by the poor classes without advice of any kind, and you will find out during your professional life the constitutional havoc pro-

duced by this unsuitable food, especially when sweetened and kept up indefinitely. It is quite true, as Hutchison, of London, asserts, that *condensed milk* is an extremely useful temporary expedient, and may be given with success for the first two or three, or even more, months of the child's life, if properly diluted and the deficiency of fat is rectified by the addition of cream, but this food should be dropped as soon as the child's digestion has generally become capable of dealing with ordinary *cow's milk*.

As stated above, you must remember that *every age has its special diseases*, and that one and the same symptom has not the same meaning at the different periods of life. In children we are most apt to meet with *congenital debility*, or to contend with an *excitable nervous system*, with *dentition*, or with *malnutrition* (bottle fed). At this age any *motor disturbance* or *respiratory disorder* will lead you to think of *convulsions*, *capillary bronchitis*, etc. In *second infancy* one would naturally think of *whooping cough*, *croup*, *eruptive fever*, *meningitis*, *entero-colitis*, etc. During *adolescence*, we always look for *typhoid fever* and *tuberculosis*; later for *croupous pneumonia*, *rheumatism*, *heart-trouble*, *gout*, *diabetes*, *albuminuria*, and *cancer*. It is in the *adult*, where *vice*, *alcoholism*, *morphine*, *cocaine*, *syphilis*, and even a *damaged urethra*, are elements capable of masking conditions and thwarting our best directed efforts. And then comes *old age*, with its *crippled heart*, *damaged kidneys*, *impaired bladder*, *enlarged prostate*, or with its *pipe-stem-arteries* ready to burst at any moment, notwithstanding our most assiduous care. It is at this advanced period of life that we expect to encounter *adynamic pneumonia*, *broncho-pneumonia*, *arterial atheroma*, *cerebral hemorrhage*, or *softening of the brain*. Moreover, less importance should be attached to *fever* and *sympathetic troubles* in children than in a more advanced age, because these symptoms have in the former a frequency which diminishes their diagnostic value, while in the latter they are more rare, but more significative. *Objective symptoms* become also very valuable in those suffering from *pulmonary hemorrhage*, where it would be imprudent to allow them to speak, as well as in those in a state of *delirium*, *coma* or *convulsions*.

This is also an institution for the *treatment of women*, a class of patients, which demand a fair stock of special knowledge, and which you should possess, if your observations and

reports are to have any value. The sex, here, influences notably diagnosis, not only on account of the marked difference of the sexual organs and of their functions, but due to hygienic habits, associations, occupation, and principally to the fact that *fever and nervous accidents* are easily and frequently developed in *women*, which, as in children, have a limited signification. *Pubescence, maternity and change of life* are normal conditions constantly exposed to influences liable to create permanent disease and suffering. The first presenting morbid phenomena which must be understood, at least, to appreciate the difficult evolution, exposures, and excitements of this period of life so constantly threatened by the demands of society, associations, bad-example, errors of living, and the ignorance of those changes which render possible the reproduction of the species and may blight a useful life forever. The second with its legitimate and illegitimate issues, full of blessings the one, full of misery the other, but both constantly leading to ruin and suffering, if the laws of Nature are not obeyed and criminal means are resorted to, either for comfort or convenience, to hide a degrading, unlawful commerce, or to protect the victim of inexperience and outrage. In these cases you are bound to meet with *inward troubles of serious consequences*, especially in those of criminal origin, or due to the neglect of those rules which are conducive to healthy function, and which, if not discovered and appreciated in time, will inevitably lead to error and discouragement (*adhesions, displacements, exudations, backaches, headaches, fibroids and malignant tumors*). Connected with this subject, is also the welfare, or the destruction of the offspring; and the vicissitudes through which the condemned fœtus has to pass in its way to maturity or dissolution, are matters for serious reflection. No less associated with misleading phenomena is that time of life, when, as a result of age, the *normal cessation of the ovarian function* takes place. During the *menopause* you may be called upon to witness marked *irregularities of menstruation*, which, at its final stoppage, principally, may interfere with the normal vaso-motor tone, and give rise to *vaso-motor disturbances*. Then comes an array of symptoms whose value and meaning you should know, if only to appease the apprehensions of the patient. *Palpitations, chills, flushings, heats and sweats* may become very prominent and be a source of much distress; and in some cases last for two or three years after the cessation of the menses.

The *hemorrhages*, especially, are sometimes so profuse and may be so prolonged, as to lead one to suspect *changes in the uterus*, which only the physician should verify. Then again, *losses of blood* from other channels may occur at this period of life, as *from the nose or from hemorrhoids*, and this at such intervals, that the hemorrhage may appear to replace the missing menstrual flow. You must know also that *fibroids in the uterus* delay the change of life and you should guard against errors. But, above all, you should bear in mind that many diseases are prone to attack women at this period, and that it is your duty to proceed here with caution, and never venture an opinion without the physician's advice. Among the maladies you may be called upon to take cognizance of, at this time of life, I may mention, first: *obesity, embonpoint, gout, flatulent dyspepsia, gall-stone*; and second: *vertigo, epilepsy, cerebral hemorrhage, and cancer*, as well as *dipsomania, hypochondriasis, melancholia*, and *pseudocyesis*, with its singular symptoms or *paresthesias*.

So important is the close observation of these cases that, I really believe, no physician living could carry out a proper treatment without the care and aid of an efficient, intelligent nurse. Your duties here are most exacting, and demand an amount of knowledge indispensable for success. Remember, also, that you may have to confront here *insanity*, with acts and psycho-motor impulses of extreme gravity and consequences. In the involuntary spinster there is often such sexual excitement as leads to *mental derangement*, but in the widow and maiden lady is where the *menopause* is particularly severe, either from ill-health, often the result of *uterine disorders*, or from a recrudescence of the generative instinct. The matron with many children, on the other hand, may exhibit the broken health of constitutional exhaustion induced by child bearing, or may be the subject of *varicose ulcers, rupture, prolapsus* and other *uterine displacements*. But after this period, women who are not dissolute, as a rule, enjoy comparatively good health, being only annoyed by an irritable bladder or a pendulous abdomen. However, in female, as in male-*senility*, you will have the opportunity of observing the pernicious consequences of *alcohol, tobacco, morphine, and cocaine*, especially when combined with improper nourishment, late hours, fatigue, foul air, polluted water, exposure, depravity and sin.

Moreover, *old age*, will offer you a profitable field for obser-

vation and study and, as I have stated above, the degenerative changes you will encounter at this period of life, will keep you constantly on the alert, and filled with solicitude and presentiment. Here, the *nervous system* is highly disordered; there is a *diminution of the intellectual faculties*, and some of the *psychoses* are attended with *loss of power*. *Loss of memory and insomnia* are constant phenomena, and *hearing and vision* powers are usually deficient. *Sensation and motion* are distinctly deranged, and in these spheres the leading phenomena are: *coldness of the legs and feet, chilliness, general itching, headache and backache*, on the one hand, and *tremors, trembling, unsteady gait, and relaxation of the sphincters* (anus and bladder), on the other. The TROPHIC CHANGES, at this period of life, are very important, for you will have to deal with a *dry, dormant skin, vesicular and bulbous eruptions, gangrene, bed-sores*, etc., and take into account the *fragility of the bones*. The chief NUTRITIVE CHANGES are: *atrophy and degeneration* (brain, heart, kidney, etc.); and the leading manifestations are: *enlarged prostate, cancer, arteriosclerosis, softening of the brain*, and *anæmia and faulty metabolism*. Under these conditions, the patient is usually *dull, apathetic, hypochondriac, chilly and trembling*, ready to succumb, whenever the organic cells can no longer select and appropriate nutritive material, or reject the products of disintegration. The SECRETIONS, principally the *urinary and sudoral*, are diminished or arrested, and *Digestion* is slow and impaired, with *anorexia, foul breath, acidity, fermentation, torpid liver, abdominal plethora, constipation*, or *urgent, involuntary diarrhæa*. The principal *respiratory troubles of old age* are, *senile catarrh, paroxysmal dyspnoea, bronchorrhæa, asthmatic attacks, emphysema, bronchiectasis with fetid expectoration, cyanosis*; and *pneumonia*, adynamic, or latent, ending suddenly in death. The *circulatory symptoms*, in this class of patients, are due to the degenerative changes mentioned above, and the alterations of the reproductive function are of little importance here.

There are other series of phenomena in which *Homœopathy* is particularly interested, and which imperatively call your attention and prompt discernment during the absence of the attending physician. These phenomena are of *mental origin* and chiefly comprise *disorders of the intellect, of the emotions, and of the acts*. They may develop during the progress of *infectious fevers or alcoholism*, but sometimes they are the result

of *drug effects*, and more frequently still, the premonitory symptoms of an *advancing psychosis*. *Hysteria* is also a rich source of *psychical manifestations*, often aggravated by the large doses of sedatives and hypnotics prescribed by our opponents.

Under a *hallucination* a patient may become unmanageable, even vicious, and the least concession or inattention may put his life in jeopardy, and perhaps make you the victim of his violent impulses. With this sort of patients you must be always on the alert, for their psycho-motor impulses are sometimes of a dangerous character, *leading to suicide or homicide*, and as restraint is here imperative, you must at once call for aid, and, if necessary, pacify the refractory organism by an opportune *hypodermic injection of morphia*.

In general, however, you should limit yourselves to observe *disorders of nerve-function*, such as *sleep*, for instance, as well as disordered states of the general activity, *excitement* or *depression*, in order to find out if they require constant watching and protection; unless you intend to devote yourselves exclusively to this branch of nursing, when you should be able to determine *indefinite mental anomalies* (a sudden change of mood, a sensorial dullness of any kind, intellectual vagaries, unreasonable conduct, and psycho-motor displays of emotional or erotic origin), and readily recognize *essential mental disorders* (mania, melancholia, hypochondriasis, etc.). It would then be especially important for you to appreciate *psychosis due to certain drugs* (hyosciamin, bromides, morphine, cocaine, etc.), as well as the *mental state of the toper* or *hysterical*. In your observations of these patients, you will find that *dullness of the sensorium*, ranging from slight apathy to stupor, is a frequent sign of an existing psychosis. Watch also the *phenomena of motility*, which are often of great importance in diagnosis.

I shall not speak to you about *traumatism* and *accident-abulia* in detail, for lack of time, but, as you will sometimes be called upon to assist the ambulance-physician in the care and preparatory removal of patients injured in *railroad and tramway accidents*, or the victims of *conflagrations, floods*, and *other serious disasters*, you must necessarily be prepared to make your assistance as valuable as possible. *Bandaging, dressing of injuries, ether and chloroform anesthesia, the application of heat or cold, local and immersion bathing, use of*

stimulants, artificial respiration, etc., are means you all should know how to apply, if even temporarily. When under such predicament, frequently isolated, perhaps the most difficult task to encounter will be the *first aid to shock*, which you all know requires at once expert knowledge. And yet you may be successful, if ready prepared, even with a rudimentary knowledge of the most common and in some cases, the most serious conditions of injury with which an ambulance pupil has to deal.

After you leave the *Alma Mater*, and start in your professional career, you will frequently find yourselves detached from association, in difficult positions, where the aid you may render will be proportional with your knowledge. See how easily then you can acquire a lasting reputation, or be a total failure.

There are a few facts connected with the subject of shock, with which I think you should also become acquainted, namely: that *spinal concussion* (railway-spine) has a remarkable influence on the *development of hysteria*, the displays of which you will be in position to observe here; that no matter how trivial the trauma, it is as potent a factor of causation as the most severe injuries; that some of the most obstinate cases that will come under your observation are those in which there has been neither a history of dramatic or horrifying accident, nor any apparent serious immediate shock or injury whatever. So be not deceived in your expectations, for the exciting influence of those cases is not in proportion to the intensity of the shock experienced. On the other hand, *accident abulia* is always accompanied by an extraordinary number of misleading somatic phenomena.

Voluntary or accidental *poisoning, drowning* and *strangulation* fall frequently under the dependence of ambulance service and you should be prepared to meet also these difficulties.

Inquiry as to the *occupation* of those entering under your care will frequently reveal valuable data for the physician to know, and which can only be obtained by the discreet appeal of an intelligent nurse, for vice and clandestine commerce are sometimes at the root of many questionable pursuits or employments. In factory girls and boys, especially, you will find *constitutional conditions* brought about by acquired disease or contagion, but in this class of patients, local and general troubles frequently result from the handling of lead, mercury, carburet of sulphur, phosphorus, infected animal skins, rags, etc., as well as from the emanations of poisonous gases, such

as the oxide of carbon, sulphurated hydrogen, etc. The *unreasonable and unfair discipline* of some of our sweat-shops and even mills, interfering as it does with the physiological needs of the system, is, particularly during puberty, responsible for many of the evils you will encounter during your hospital work. And if to this you add filth, uncleanness, poverty and vice, you should, certainly, not wonder at the ravages made by *phthisis* and other constitutional diseases, upon such propitious soils. Unfortunately *malnutrition* goes always hand in hand with low wages and debauch, and, I believe, it will not be long before such of these social evils are met by special legislation and voluntary contribution. Notwithstanding the claims of many, *Tuberculosis* keeps on claiming its victims with the usual severity, but *prevention* and early care of the disease may offer you, I hope, good opportunities to demonstrate your ability, and those human qualities so necessary to the comfort and encouragement of these unfortunate creatures.

I think I have given you already an idea of the *general knowledge* you should possess to gain distinction, and it remains for me to entreat you to examine methodically and carefully the countenance, surfaces and outlets of the body, the state of development of the teeth and genital organs in children, and the state of the mind and disposition of all arrivals. Take notes and keep the general history of your cases, from day to day, if possible; and be serious and diligent in all your acts. Watch the secretions and excretions, the pulse and respiratory rhythms, the oscillations of the temperature, and above all fill your reports accurately, that they may be of advantage to the attending physician and a demonstration of your experience.

Hygiene, ventilation, disinfection and prophylaxis are subjects you cannot afford to ignore and it will be profitable to you to be able to judge of the quality and preparation of the *diet* your patients receive. Be attentive to the needs of those under your care, look to their comfort kindly, make their surroundings cheerful, protect them from noise, light or odors, if required, but do not make concessions that may prove detrimental to them, retard the cure, and place your reputation in doubt. Be punctual in the administration of the remedies prescribed, and note their effects, especially if they produce any marked aggravation, or an unexpected amelioration, for no

homœopathic clinical report is complete without this observation.

Finally, in order that your *observations and reports of the symptoms and signs*, may be intelligently made, according to our methods, and that you become more and more familiar with your task, I earnestly advise you to read the *Organon of the Art of Healing*, by Hahnemann, where, I am sure, you will find many valuable hints to increase your knowledge.

Now, ladies, I hope I have covered well the subject of my lecture, and made those suggestions necessary for the convenient discharge of your duties and the realization of your aims, and I sincerely trust that you may keep on improving your chances of success, so that in due time you may be able to reap the fruit of your assiduity and labors.

THE MEDICAL TREATMENT OF CHOLELITHIASIS.

BY

E. RODNEY FISKE, M. D.

(Read before the Homœopathic Medical Society of the State of New York.)

MEDICAL experience, in the last two decades, has acquired definite knowledge in the treatment of appendicitis and, while the clinician and surgeon still battle over the question of their opportunity, their disputes become less and less acrimonious and procedure in this disease is simpler and more definite. This position of clarified vision is the result of the surgeon's entry into the field of this disease, for he has demonstrated every phase of a once obscure condition and made certain the necessities of each individual case.

The profession is passing through a similar evolution in the treatment of the diseases of the gall bladder and ducts. As with appendicitis, the swing of the pendulum of opinion shows at one extreme the radical views of Winiwater, who advises operation in all cases where the presence of gall stones can be demonstrated, and at the other extreme, the opinion of Cohnheim, who suggests that, "only when internal therapy has been exhausted and severe attacks continually recur, should the patient be referred to the surgeon."

There are several very important facts to be considered in

this condition, which demonstrate the possibilities of medical treatment. The ætiology of gall stone formation is practically known, for in every case operated or examined post mortem, we find an antecedent cholecystitis, which has been due to infection. Colon and typhoid bacilli, staphylo- or strepto-cocci and rarely the influenza bacillus or pneumo-coccus are the cause. The avenues of approach of the bacteria are either by direct passage from the duodenum, past the papilla of Vater or through the portal circulation. The frequency of gall stone formation in women, especially after pregnancy, has led some observers to state that absorption of pelvic detritus is a possible cause. In my opinion this is not a reasonable cause of gall stone formation, because of the usual history of attacks during the first and second months succeeding labor. As stones require several months for formation the pelvic source of infection is not probable. Pressure on the ductus communis and consequent retention of bile in the last three months seems to me the more reasonable cause of post-partum attacks. My own experience has demonstrated attacks in patients with a perfectly normal puerperium with absolutely no infection of the uterine tissues, and these attacks have occurred within four weeks of delivery.

Cholecystitis may or may not result in the formation of gall stones. Kramer has demonstrated that colon and typhoid bacilli grown in a culture of bile, precipitate a semi-solid mass which resembles in all particulars gall stone formation. The reasonable expectation is therefore such formation after cholecystitis, and herein exists the clinician's opportunity to thwart the surgeon, for by early recognition of this disease and by prompt and continued treatment we should be able to arrest its influence and thus prevent stone formation.

Mignot showed ten years ago that stones could be produced in dogs in four or five months. A further fact of great value was demonstrated by Bain in 1905, who showed that if gall stones are introduced into the healthy gall bladder of dogs, they are dissolved and disappear in a few months. This fact may mean the possibility of their disappearance after restoration of the gall bladder to a healthy condition.

The medical treatment of cholelithiasis, therefore, includes first and foremost, the recognition of the underlying and preceding condition as its most important element. As with appendicitis, the most serious result, general peritonitis, led to

the discovery of the causal factor and to its closer study and eventually to its present position of clean-cut, positive symptoms and treatment, so the presence of antecedent cholecystitis as the essential causative element in cholelithiasis should lead to the closer study of this disease.

The practitioner does not, however, as a rule recognize cholecystitis, although some authors claim it is the most common disease of the abdominal organs. Cases of catarrhal jaundice, gastritis and indigestion may show on closer analysis a swollen, tender gall bladder and prove to be cholecystitis, which may be followed up with successful prophylaxis. In the acute condition, a tumor forms, there is no general hepatic enlargement but a tongue-like process of liver substance, Riedel's lobe, may appear in the neighborhood of the gall bladder. Jaundice depends on the extension of the inflammation to the common duct; there is always acute pain, tenderness, more marked on inspiration, sometimes peritoneal friction and fever.

Statistics show that gall stones are formed more frequently after thirty than before, ninety-five per cent. occurring in cases after that age and also that they are more common after the age of forty. As it is more common in women, especially in the parturient, the influence of pregnancy, forced feeding of the nursing period, more sedentary habits, manner of dress, more frequent constipated habits, all point to simple prophylactic measures. We can not proceed further with the discussion of medical treatment of this disease without referring to the surgical question. It seems to me that the presence of suppurative inflammation in most cases warrants the surgeon's presence and interference. Question as to the quality of the inflammation is determined by careful hæmanalysis. This procedure repeated frequently decides with reasonable precision the urgency for operation, the same standard of leucocytosis being applied to this question as in other suppurative conditions. Korte's opinion is that the necessity should be judged from the type and degree of inflammatory disturbance, either periodically or persistently. Riedel advises early operation, for he considers that an attack of colic calls for operative interference, if no small stones are evacuated during or immediately following the attack. Kehr advises operation, first in acute, purulent cholecystitis; second, in chronic obstruction of the cystic duct; third, in persistent colic; fourth, in formed tumor, with a suspicion of carcinoma. Ewald states that the prognosis without opera-

tion is good and that when operation is decided upon it should not be delayed longer than a month, owing to the prospect of bad healing and risk of hæmorrhage. Linossier classifies this disease into three forms: first, latent cholelithiasis, in which there is no necessity for treatment, as there are no symptoms; second, cases with paroxysmal signs or colic, in which medical treatment alone suffices, for the danger of surgical interference is greater than the disease; third, cases with permanent symptoms, owing to infection, which are surgical.

The treatment of any case of cholelithiasis must be treatment of the individual. Many cases occur among exhausted men of business, whose occupations have tended, with their sedentary habits and nervous tension and worry, to passive liver congestion. Such cases require habit change. The same type of patient presents all the symptoms of gastro-intestinal catarrhal diseases, which demand treatment. The value of the Carlsbad cure and other cures is to be sought as well in the restful life and change from tempestuous living as in the effects of the saline waters.

In women the use of tight clothes with constricting bands of any kind must be prohibited. Clothes should be slung from the shoulders and all pressure over the waist diminished as far as possible.

The diet should be carefully selected for the individual. Keay advocates no special restriction but says that it is more important to adapt the diet to the patient and make digestion as near perfect as possible, because "it is from the products of indigestion that the bile derives those irritating properties that lead to the disease of the gall bladder and bile ducts."

Excessive fat food, starch or sweets should be avoided, alcohol must be absolutely prohibited and there is no doubt that small meals taken frequently tend to stimulate gall bladder evacuations, as that organ is known to empty itself soon after the ingestion of food, thus favoring the overflow of bile and the prevention of stagnation.

Large quantities of water act favorably, probably by flushing the stomach and intestines, thus preventing catarrhal accumulations. Water is best taken hot, early in the morning and late at night, about a pint at a time. It should be avoided at meals.

Keay recommends high rectal enemata after the bowels have had a preliminary cleaning enema, this water to be retained.

Constipation should be prevented by every suitable measure.

The question of exercise is very important, general out-door sports, walking, golf, riding and bicycling may be ordered. Violent exercise should be prohibited and is contraindicated in most cases by the age of the patient. Kuebner devised an elaborate system of diaphragm exercise, with the idea of increasing portal circulation and imparting actual motion activity to the liver and gall bladder. He claims excellent results from these measures.

The administration of drugs for this disease opens a vista of far-reaching dimensions. The last decade has introduced the ingredients of the bile, as favoring fluidity of that liquid and therefore the glyco-cholate and taurocholate of soda have been freely given. Succinate of soda as recommended by Tyson in five grain doses three times a day has been eminently successful for me in two cases. The glyco-cholate of soda has proven efficient in other cases, I administer it in the first x trituration, giving a five-grain powder after meals.

Salicylic acid is highly recommended for cholecystitis as it is excreted in the gall bladder and acts as a local antiseptic.

The use of glycerine, turpentine, ether and olive oil, each have numberless advocates.

The use of olive oil is always a mooted question. Whatever may be said for or against it, no doubt many cases have been much benefited by its use, and possibly cured. We must be careful, however, in demonstrating the presence of gall stones in the feces, not to confuse the concretions of fat which result from the use of olive oil with gall stones.

The homœopathic remedies include many drugs: aurum, baptisia, berberis. vulg., bryonia, calc. carb., carduus, chelidonium, chionanthus, cinchona, dioscorea, gelsm., hydrastis, leptandium, nux. vom., podoph, magn. phos., lycop.

During the colic of the disease it has been my experience that many cases need morphia and plenty of it. The same patient with a smaller stone may get through with hot compresses and other remedies.

I have seen a number of cases of cholelithiasis and in no instance so far has the surgeon been needed. Some cases have remained free from attacks for years, but only after protracted medication.

Recurrences are most frequent in the unruly patient whose efforts to secure permanent relief are spasmodic and whose

habits cannot be controlled. I believe that most of these cases can be treated successfully, and with Cohnheim that every medical means should be first exhausted before they are forced to the operating table.

RATIONAL MENTAL THERAPEUTICS.

BY

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(Read before Uptown Medical League, Feb. 15, 1909.)

THE *British Medical Journal* some time ago asked for information regarding the scope of the mind in the cause and cure of disease, and the comment was as follows:

"This is all very interesting, but some people would perhaps like to know how this key to the cause and cure of many if not most diseases is to be used; and to have one or two diseases named in which the unconscious mind plays the part of causation or cure, and some suggestion as to the uses of the knowledge in respect to cure."

Dr. Schofield states his view: "The sense of proportion is necessarily lost between the relative importance of this mental factor and all the other causal factors of disease. It must not be supposed for a moment that one does not fully recognize that, after all, in many diseases the part played by the mind is *very small* indeed, either in cause or cure, though we believe that to some extent it is ever-present."

This level-headed head-line set out by the author is quite good and one is impressed with the importance of the subject; but permit us to go a little farther in our conception of this line of treatment, not to supplant entirely the material, but to help it, in those cases where the material has failed.

Mental therapeutics have been consuming a large part of the attention of the profession of late years, having added thereto, interference from the clergy, laity and, we are sorry to say, some misinformed practitioners, or possibly, better put, some over-zealous ones.

Mental therapeutics has been twisted into the wiles and ways of the hypnotist, the faith healer, etc., when the proper realm of it should be in the profession for the profession and practiced by them.

I lay down as the essential feature, that man is a human being, and as such he is entitled to respect as being modeled after the Creator. Again, man has been endowed with intellect, reason and mentality, differing from animals. It is very necessary never to lose sight of this fact.

The unconscious mind is then the best term that I can find for this power which we all recognize in medicine.

When the conscious limits are reached, then the powers of the unconscious mind begin, and its actions, though only styled instinctive, may be truly said on the whole far more rational and beneficial than those inspired by what is always assumed to be reason, but which just as often is unreason, and, indeed, becomes at times a positive power for evil over the body, a disaster which rarely happens in case of the unconscious mind.

Dividing the mind into emotion and intellect, we find that emotion has unconsciously caused numerous cases of epilepsy, jaundice, urticaria, rachialgia, paralysis, boils, cancer, gastric disease, retention, amenorrhœa glandular kidney and anasarca.

The intellect, on the other hand, has a much less intimate connection with organic diseases; and from what we adduced as to the relative power of the conscious and unconscious faculties on the body, the reason is clear. Emotion in its varieties is often wholly or partly unconscious, whereas intellect is almost always exercised consciously, though its effects upon the body are wrought by the unconscious mind, apart from direct action of the will. The results are, therefore, much shallower and more superficial and nearly always functional.

We cannot, of course, however, force ourselves to believe; and it is often difficult by ordinary means to set in train the curative powers of the unconscious mind.

The powers of the unconscious mind thus revealed are truly marvelous both mentally and physically. Mentally it can recall facts, dates, numbers, etc., far beyond the powers of the individual.

The unconscious mind can be reached therapeutically directly without any conscious process whatever and this in two ways.

(1) Hypnotism is one, a power that abolishes consciousness and addresses suggestions directly to the unconscious mind, which is in this condition easily reached and powerfully affected.

It can be made in the hypnotic state to act directly on the

body and produce gross organic changes in a way incredible if not established by innumerable experiments.

But apart altogether from this method which I in no way recommend even were all the doctors competent to use it, there is another way of directly acting on the unconscious mind of the patient and that is (2) *THROUGH THE MENTAL PERSONALITY OF THE PHYSICIAN.*

A recent editorial in the *HAHNEMANNIAN MONTHLY* sets forth a sound doctrine which is as follows:

"To our mind the following views appear to be more rational and more in accord with the facts of psychology and of practical experience. In dealing with this type of cases it is necessary to distinguish between real nervous and physical fatigue and what may be called psychic fatigue. The former cases are benefited by moderately long periods of repose and by the withdrawal of every form of stimulation. The latter seldom require this treatment and may even be injured by it. When a muscle becomes weak and flabby it is strengthened, not by disuse, but by exercise and work. This exactly describes the situation of the persons I refer to. What is tired in them is their minds. They have become morbid, self-centered and egotistical. Their affections are blunted; their lives are useless and without purpose. They are tired of thinking of themselves and of the weary tread-mill through which they pass day after day. Unquestionably these mental states produce corresponding physical states of fatigue and general debility. Sometimes these physical symptoms are so marked as to require special treatment, *e. g.*, rest, but it must be rest alternating with work, otherwise we shall merely confirm our patients in their bad habits. For what these patients really need is an aim and interest in life an occupation that will not only interest them but also bring them back to a normal and wholesome method of living, to re-establish the broken ties, to rekindle cold affections, in short, to lead them to a life in which they can take pleasure because it is a life worthy of a man. . . . In my opinion the best means to lead men and women from the condition I have described is to interest them in others. Work to have a therapeutic quality, must impart to the worker a sense of success and of service. He must feel that he is accomplishing something that is really worth while.

"Amongst the means used we may mention besides direct

mental influence the value, largely psychic, of drugs, climate, isolation, forced feeding, baths, electricity, minor operative measures, massage, dietaries, special occupations, changes of scene and country, hard work, moderate shocks, mental or physical incentive, object lessons in others, disuse of the old ruts in the brain; by making suggestions opposed to the vicious trains of thought throughout the day by every means at one's disposal, and by securing sound sleep, if necessary by drugs or by a full warm meal the last thing at night.

Herman suggests the occupation of the patient's mind by massage and electricity (as adjuvants). The mystery of electricity satisfies the patient that something powerful is done, and gives her confidence. I may add that besides this psychic effect it does much physically.

There are at least four ways by which mental therapeutics can be applied.

1. By direct active power of the unconscious mind adherent in itself and generally called the *vis medicatrix naturae*.

2. By the unconscious mind influenced directly by surrounding personalities or other unconscious agencies acting as suggestions.

3. By the unconscious mind influenced indirectly by the conscious, which has faith in persons, systems, places, etc.

4. By the unconscious mind indirectly acted on by the conscious by distinct effort—in determination to get well—to shake off illness, ignore pain, etc.

The *vis medicatrix naturae* of Hahnemann is the essential feature of our therapeutics and Hahnemann taught us our first lesson in psychic therapeutics, when he taught us this one.

The unconscious mind influenced directly by surrounding personalities offers us as physicians a wide scope of action and a beneficial one. The absolute faith, confidence of a physician in his patient and of a patient in his or her physician offers us the soundest doctrine of mental therapeutics.

Let the physician be worthy of such confidence and it will not be lacking in results. Positiveness, self-assertion if you please, but have a satisfactory basic line of action as to relationship of confidences.

We must not lose sight of the fact that man is the image of his Creator, part and parcel of Him, differing from the animal by reason of his God-given intellect and as such we must re-

spect him. Any attempt on our part in which this is lost sight of, can but meet with defeat and failure.

If we liberate the conscious from the sub-conscious we cause the intellect to be weak by repeated attempts at this. Therefore, to my mind, hypnotism possesses little interest to me.

The unconscious mind influenced indirectly by the conscious which has faith in persons, systems and places.

Here is where error is so apt to creep in. Man needs faith in his Creator and Preserver. Next he needs faith in himself, and beyond that faith in no one or no thing and this will settle the last question.

Let us set up our standard of Mental Therapeutics. HAVE FAITH IN YOUR CREATOR, YOURSELF AND YOUR DOCTOR.

By the term "faith" we mean unconscious mind in its absolute relationship to the conscious.

CLINICAL EXTRACTS.

RECENT bacteriologic research has elucidated much in regard to the epidemiology, pathogenesis and etiology of typhus abdominalis, but its contribution to typhoid therapy has been scant. The serum treatment, though warmly commended (especially by Chantemesse) has not found its way into daily practice. Brand's cold-water cure has remained the classic treatment, resulting in a considerably lessened mortality. Because, however, of these recent investigations, the similarity of typhoid to the septicæmic diseases has become increasingly evident. The theory which considered the disease as exclusively intestinal, (a follicular enteritis, Broussais, Bourlland) has long since been forgotten. We know now that typhoid is a general infection, the exciting cause of which is first found in the blood, and then localizing in the intestine and other organs where it induces deeper pathologic changes. Typhoid then, particularly in the beginning, may be rightly characterized as a septicæmia. The author treats it along lines pursued in other septicæmic conditions and uses 1-2 rectal injections of 5gg. collargol plus 100 gg. aq. dest. daily, or, when the injections are not retained, 8-10 1 gg. capsules are given daily. Not the slightest intoxication therefrom has been noted. Dr. Th. Mironesen, *Berlin Klin. Wochenschrift*, 1909, Nr. 1.

TUBERCULOUS ANAPHYLAXIS. When an organism becomes loaded with certain toxins there develops a hypersusceptibility where another, even minimal dose develops an anaphylactic explosion, usually fatal. Such phenomena have been noted in the course of a diphtheria antitoxin treatment. Yamarouchi (Tokio), has made use of this principle in the detection of latent or active tuberculosis without running the risk of infecting the healthy or re-infecting the tuberculous patient. (Cf. von Pirquet's, Calmette's tests, etc.) He injects rabbits with tuberculous material (blood, emulsion of tissues) from the suspected individual, even from a cadaver. After a few days the rabbit is given an injection of tuberculin, harmless to the control-rabbit. The tuberculinized rabbit after the injection of tuberculin usually dies from anaphylaxis within 24 hours; or if the issue be not fatal the anaphylactic syndrome presented is easily diagnosable. Further experimentation, then, on the human subject appears to be inexcusable. (*Wiener Klin. Woch.*, 1908 Nr. 47-48.)

ULCUS SERPENS CORNEAE. Prof. E. Fuchs, in the *Wiener Klin. Wochenschrift*, 1909, Nr. 1, says: This affection, also called corneal abscess or hypopyonkeratitis, often ends in total loss of the eye, especially if the patient delayed in seeking medical aid. It is rather common in the working classes, and hence should be cognizable not only by the oculist but by the general practitioner. It is usually due to infection with pneumococci (*diplococcus lanceolatus*) which gain entrance via some abrasion of the corneal epithelia. Ulcus serpens following acute exanthemata (variola, rubeola, etc.) probably begin in the same way, and are not metastatic as formerly supposed. The pneumococcus is generally on hand, either in the conjunctival sac in chronic conjunctival catarrhs or—more often—in the diseased lacrymal sac. The ulcer is commonly found in the middle of the cornea, presenting a slight depression or even a flattened bulging, often surrounded by a yellow ring, inside of which the cornea is less opaque, often almost transparent. The extending margin has usually an annular form only at the beginning of the trouble, a portion of the ring usually clearing up so that a yellow sickle or crescent remains. Pus also collects on the inner surface of the cornea but comes from the concomitant iritis and is therefore free from bacteria. The diagnosis of ulcus serpens is established as soon as the progressive

margin is cognized. In most cases the ulcer yielded to bandaging, atropin, warm moist compresses, subconjunctival injections of sublimate. Where these failed galvanocautic sufficed. Where material for bacteriologic examination was taken, cauterization was immediately done. The typical *ulcus* above described is rare in children, where the affection exhibits a very puffy infiltration bulging up through the corneal superficies; the color sometimes white, sometimes gray, and everywhere the same or else even more pronounced in the centre of the ulcer in contrast to the very slightly turbid central appearance noted inflamed; also the migration of leucocytes from the corneal margin to the bacterial focus may be more rapid in children in adults. These differences are probably due to anatomic relations, the cornea in children being very apt to swell up when than in adults

AUTOSEROTHERAPY IN SERO-FIBRINOUS PLEURITIS. Fede in his monograph, "*L' autoseroterapia o cura de Gilbert nelle pleuriti serofibrinose per. F. Fede, Napoli*"), reports that, according to Gilbert the exudate in tuberculous or non-tuberculous pleuritis can be halted, if with a Pravaz syringe 1 cc. of the serofibrinous exudate be aspirated and then injected subcutaneously. These injections were repeated on the following days, commonly 2-4 times in all, according to the severity of the case. He cites five cases, with positive results. Soon after the subcutaneous injection, the volume of urine increased and in easy cases there was complete cure in 12-15 days. No bad results were noted, but, for the mode of action in autoserotherapy no satisfactory explanation was given.

In fifteen cases of pleuritis serofibrinosa, the above treatment was pursued by the author, in fourteen cases successfully, in one without result. Thus, the experiments of Gilbert and Fede are confirmed. In hydrothorax, ascites, hydrothorax with ascites, hydrothorax with ascites and pericarditis, in hemorrhagic pleuritis and in pleuritis developing purulency, the method, except in two cases, was without result. In employing autoserotherapy there must be perfect disinfection and perfect sterilization of the syringe. Dr. Schnütgen, *Berl. Kl. Woch.*, 1909, *Nr.* 3.

EDITORIAL

STANDING UP FOR HOMŒOPATHY.

A RECENT writer in *Success* says: "There is one sort of man for whom there is no place in the universe, and that is the wobbler, the man on the fence, who never knows where he stands, who is always slipping about, dreaming, apologizing, never daring to take a firm stand on anything. Everybody despises him. He is a weakling."

There are some homœopathic physicians who ought to read, learn and inwardly digest these words. We mean the men who are always making excuses for being graduates of homœopathic institutions and for their connection with the homœopathic school. The fawning and cringing attitude that men of this type adopt toward the old school is disgusting to any man who has a grain of self-respect in his make up. A mere crumb of recognition, an invitation to an old school medical gathering or an intimation that he might be received into one of their societies if he renounces his homœopathic views, fills the heart of one of these wobblers with great joy and he almost imagines that it is his superior medical attainment that has won him this distinction (?). Little does it occur to him that he is simply being used for a "good thing" and that he is as much despised by his perverters as he is by all true-hearted men.

These remarks do not apply to the man who has become convinced, after careful thought and study, that the principles for which the homœopathic school stands are fallacious and unworthy of his support. It is then his privilege, nay even his duty, to make known this fact and to associate himself with the particular school of medicine that is in accord with his views. Occurrences such as this are very rare indeed as homœopathy is quite capable of standing every test that can be reasonably demanded.

During the past few years the old school has been talking a great deal about the unification of the medical profession. A

most worthy object, indeed, if it were only gone about in an honorable way. When we come to inquire, however, into the method by which they expect to bring about this unification, we discover that they propose that homœopathists and others shall renounce the views and the name which they formerly held and come into their organizations. Naturally they count on winning over the weaklings and the wobblers by flattery, by promises, by coercion or any other method that promises success. It may be said to the credit of the members of the homœopathic profession in Pennsylvania that, with very few exceptions, they have indignantly refused such offers. Everywhere the stand has been taken that no loyal homœopath can renounce his school in order to become a member of an old school society. The kind of unification the allopathic school has endeavored to force upon the homœopaths in this state is designed purely and simply for our annihilation. That is the truth of the matter, frankly stated; let no one be deceived by cunningly worded statements to the contrary.

Let us, as homœopathic practitioners, be true to our cause and meet the proposition fairly and squarely. Let us state our belief in the principles of homœopathy so forcibly and so openly that no one can misunderstand our position. And let us make it known that we are for professional unity heart and soul. Not so-called "unity," upon the terms and under the flag of "our friends the enemy," but on such terms as shall be agreed upon by a conference of official representatives of both schools as being honorable and mutually beneficial. Any one who claims that he wishes to bring about professional unity on any other grounds is, in fact, its greatest enemy and is working for the benefit of himself or of some special school of medicine rather than for the good of the profession at large. Let no one be deceived by wolves in sheep's clothing.

SANITATION IN THE PHILIPPINE ISLANDS UNDER AMERICAN RULE.

It is surprising when we consider the number of persons living in our enlightened land and having around them continually the beneficial results of medical and sanitary progress who still exert every effort to belittle the work of physicians and brand medical science as a fraud and a delusion.

Not only does this spirit manifest itself on the part of individuals, but large, and in some instances influential organizations, such as the anti-vaccinationists, the anti-vivisectionists, Christian Scientists, and others, have been formed for the express aim and purpose of denouncing the efforts of scientific physicians and to impede in every possible way the enactment and enforcement of sanitary laws. No doubt many of these misguided enthusiasts are sincere in their views and are misled more by their lack of knowledge than by malignancy of purpose. In either case, however, the ultimate result is the same, and their baneful influence is so destructive both to the individual and to the social body that they may well be regarded as the enemies of civilization and of humanity. A favorite argument among this type of persons is to cite the fact that they have paid no regard to sanitary rules and yet have escaped disease. This argument might have some force did we not have abundant proof that the immunity which they enjoy is due to the fact that the vast majority of people in the community in which they live *do* observe such rules and thus in a large degree protect those who do not.

The only rational and fair method of testing the value of modern sanitary procedures is to compare the conditions of health in a community before and after proper sanitary rules and regulations have been enforced.

We have an excellent opportunity for such comparison in the Philippine Islands. At the time the American troops entered Manila, August 13, 1908, they found sanitary conditions about as bad as it was possible for them to be. Dr. W. E. Musgrave tells us that at that time the water supply of the city was obtained from the Mariquina River, a few miles above the city, the pumping station being supplied by a small dam sloping to an intake. "Some idea of the condition of this water," he states, "may be imagined from the fact that there were more than 20,000 people living on the banks of the river above this dam and that a great public highway passed along its banks for miles. . . . The intake was guarded by a grate and it was often necessary to remove the carcasses of dead and decomposing animals from in front of it in order that a fuller flow of water might reach the pumps.

"In the absence of sewers, waste disposal of all kinds was what might be called a family affair, most of it being deposited and allowed to decompose and disintegrate in the 'back yard.'

after which it was used for fertilizer, or in the case of somewhat durable material, for road construction. In addition to this, other conditions were just about as bad as they could be. The markets were dirty beyond belief, the streets were poor and ill-kept; public bathing and toilet facilities were unknown; unkempt and decaying tropical vegetation abounded everywhere; flies and other pests were exceedingly numerous. There were practically no facilities for the care of contagious and infectious diseases, and as a result patients suffering from smallpox, leprosy and other dangerous diseases were, when very ill, kept in their homes, and when able to go about could be seen daily in the streets, in the markets and in other public places. I have many times seen persons with smallpox pustules not yet dry on their bodies attending to their stalls in the public markets, and have noticed tailors and cooks performing their duties while suffering from advanced and well-marked leprosy."

Such was the condition of sanitation in Manila prior to the time of American occupation. Not only is this true, but worse still, such was the ignorance and superstition of the people that they were openly opposed to any change in these conditions. Like the "antis" among us they were opposed to vaccination, opposed to isolation of those suffering from contagious diseases, opposed to spending money on sewers, pure water and other sanitary improvements necessary to the health of the community. The American Government realized, however, that it would be impossible to keep healthy soldiers in Manila under such conditions and despite the protests of those who did not believe in germs, etc., a sanitary code was early established and the work of making the city a suitable place to live in has gone on steadily ever since.

At the present time a new sewage system about twenty-nine miles long is about completed. A suitable supply of water has been secured, free from human and animal contamination, and a reservoir constructed about fifteen miles from the city. In addition to public improvements, the health officers have made every effort to impress upon the minds of the people by means of lectures and literature the importance of personal hygiene and cleanliness.

And what we may ask has been the result of all this expenditure of time, effort and money? If the views of the opponents of modern medical progress are correct the result should be practically *nil*. In fact, as the Government has passed a com-

pulsory vaccination law and has taken particular pains to vaccinate everyone, smallpox should be just as prevalent and the general health of the people vaccinated should be even worse than before. And as for the wholesale slaughter of helpless rats in order to prevent the spread of plague, that were an outrage which, to the mind of some of our good people, would fully justify Providence in sending upon the city nine plagues instead of one.

Nevertheless a careful study of the facts reveals an entirely different state of affairs and we do not hesitate to affirm that the improved state of health in Manila offers absolutely convincing proof of the practical value of modern sanitation in preventing and in suppressing contagious diseases. Thus we find that since vaccination has been systematically carried out in the Islands, smallpox, which was formerly a pest, is now rarely encountered. Dysentery, formerly an epidemic and fatal malady, has been reduced to a few sporadic cases. Cholera epidemics have been reduced to small outbreaks which have been promptly controlled. Plague, which often threatened Manila, though it never had a serious hold on the city, is rarely encountered and the authorities have no fear of the disease becoming epidemic. The lepers, a very numerous class in the Philippines, have been segregated into a colony. So satisfactory have been the results of altered sanitary conditions in Manila, that a recent writer states that Manila to-day is one of the cleanest, healthiest and most attractive cities under the flag and that if the present rate of improvement continues other American cities will have to look to their laurels.

THE BACTERICIDAL POWER OF LIVING CELLS.—A. Albergo-Berretto, after experiments on animals by injections of emulsions of bacteria to ascertain the power of the living cells to destroy bacterial life, gives us the following conclusions: That the uninjured tissues as long as they preserve their vital properties are able to destroy rapidly all micro-organisms that come immediately in contact with them. The micro-organisms only find a condition adapted to their action in the presence of injuries to the tissues, or in conditions in which their vitality is lowered. In this destruction the phagocytes take an important part, but they are not the only factor in this destruction of germs. There are substances already contained in the protoplasm of the tissues which kill the germs, and all cells have the power of elaborating such substances when they are needed.—*La Sperimentale*, August, 1908.

GLEANINGS

THE GENERAL CONSIDERATION OF THE THERAPEUTIC USE OF DIET.—Hutchinson, in the *London Practitioner*, calls attention to the loose way in which dietetic means are employed as compared with the relative exactitude and consistency with which drugs are prescribed, and says that this is due in no small measure to the lack of proper system in instruction in dietetics in our schools. In this article he endeavors to sketch very briefly the general uses and limitations of dietetics in the cure of disease, and in the conclusion of the article he lays down some general rules which may well be borne in mind. (1) When prescribing a diet for a case of local disease, one must take care not to sacrifice the whole to the part. (2) No article of food should be forbidden unless one has good reason for doing so. (3) In acute diseases one should recommend, in chronic forbid. (4) Before recommending any article, find out whether the patient likes it and whether it agrees with him. (5) If an article disagree it is better to reduce its amount in the diet than to cut it off altogether. He further calls attention to the comparative immunity of the carnivora to tuberculosis and to the success which has attended a raw meat diet, and while he does not maintain that the subject is definitely settled, he suggests that it is well worthy of consideration. If we would escape the charges of inconsistency and arbitrariness apt to be brought upon us with some justice when we come to the dietetic part of our plans of treatment, we should never make a change in a patient's customary diet unless we have definite grounds for so doing.—*Charlotte Med. Jour.*

OATMEAL IN DIABETES MELLITUS.—Pari (*Gazz. degli Osped.*) says that, in spite of its relative richness in hydrocarbons, oatmeal is often not only well borne by diabetics, but exercises a curative effect. V. Noorden first drew attention to this fact in 1902. It is not possible to continue for long on a diet of oatmeal alone, as nausea, diarrhoea, and oedema may occur, so that it is well to alternate with other diabetic diets—for example, one or two days of strict dieting (flesh, ham, greens, butter, cheese), then three or four days of oatmeal, followed by one or two days of greens, and so on in a cycle. At first, after the oatmeal diet, there is a slight increase in the glycosuria, but this soon disappears and comes down to the level, or even below, that obtained by the strictest dieting. Seeing that we know so little about the actual chemical composition of the various starches, the author thinks it not impossible that the starch of oatmeal may have a specific action on diabetes. The writer mentions a case of diabetes in a young man aged 22, where the oatmeal had a decidedly good effect, and in a very short time (a few days) brought about the disappearance of the sugar, the oxybutyric acid, and very much reduced the acetone, whilst the body weight increased.

THE ADMINISTRATION OF TUBERCULIN IN PULMONARY TUBERCULOSIS.—

Inman discussing this subject in the *Lancet*, states his conclusions as follows:

1. Tuberculin may be given with effect by the mouth or rectum or subcutaneously. The dosage is dissimilar, but animal experiments, opsonic curves, and temperature charts show that the effects produced are the same.
2. The administration of tuberculin meets with little, if any success so long as successive autoinoculations spontaneously occur and cannot be limited by the means at our command. Absolute rest is the most efficient means for limiting autoinoculation.
3. The administration of tuberculin may be adequately controlled in a large percentage of cases of pulmonary tuberculosis by a careful daily observation of the temperature and clinical condition of the patient.
4. In cases of difficulty valuable information may often be obtained from an examination of the opsonic index.
5. The German method of the routine administration of tuberculin by gradually increasing doses at stated intervals is not to be recommended. It is only satisfactory in a very limited class of cases, and even then may not lead to the best results.
6. Tuberculin is a dangerous drug and its administration requires considerable experience. It is capable, when given improperly, of producing disastrous and even fatal results.

THE INJECTION TREATMENT OF SYPHILIS.—During recent years the treatment of syphilis by injections of insoluble compounds of mercury suspended in oil, has had many advocates. The technic of this method is as follows: A large calibre needle $2\frac{1}{2}$ inches under the head is advised, which has been boiled fully five minutes before being used. Strilized suspension of the salicylate of mercury, 1 grain in 10 minims of benzoïnol is employed. The skin is sterilized by scrubbing with tincture of green soap, then with alcohol and painting freely with iodin. Where the skin is deeply stained by the iodine the injection is made. Massage of the point of injection is then carried out for two or three minutes gently with sterilized gauze. The mouth of the needle-hole is again painted with iodine and flexible collodion is used as a seal. No other dressing is made.

A recent writer in the *New York Medical Journal* summarizes the advantage of this method as follows:

1. The injection method of treating syphilis is the most efficient of all methods.
2. It keeps the patient best under control of the physician because he must return once or twice a week for his injections and for other treatment as needed by perhaps new symptoms.
3. Although the medicine used is an antiseptic the injection is a surgical procedure and as such requires the usual precautions of sterilization of the skin and of all instruments used. Rigid asepsis must never be neglected.
4. If the injections are slowly and gently given with a long needle and if the patient is in the proper position of relaxed glutei, they are in most cases virtually painless. If painful, the patient may be told that they are exactly like a bruise and of no more importance. In the bruise the extravasated blood is the foreign body while in the injection the medicine

is the foreign body causing the slight pain, by separation of the muscle fibres.

5. Node-formation of longer duration than two or three days is very rare if the injection is gently and deeply made into the muscle.

6. Abscess-formation may be totally avoided if sterilized fluid, needle and skin are obtained.

7. Embolism is a real danger, but is in fact very uncommon. In the writer's experience a little less than once in 1,000 injections.

8. Toxic accumulation is hardly excusable if palpation of the point of the preceding injection is made at each visit, before giving the next injection.

9. The salicylate of mercury appears to be so ultimately satisfactory that no other salt need be considered. The terms soluble and insoluble salts meaning as they do the laboratory solubility, are unfortunate. The soluble salts of which bichlorid is the type give a very prompt and extreme reaction during the first 24 hours. The so-called insoluble salts, with the salicylate as the type give a slower, surer and more prolonged action, apparently lasting five days.

10. Continuation of the injection is, as far as our experience is concerned, necessary for the usual two or three years with one to two months' rest in each year.

11. Of course, the patient's strength must be maintained at the highest possible level and in short, the disease must be managed like other parasitic diseases of which tuberculosis is a type. Fresh air, good food, judicious exercise and hygienic habits are indicated.

If the foregoing simple principle of employing this method of treatment are studied and followed the writer is convinced that a larger number of physicians will adopt it as in every way the best means of treating this disease.

ATAXIC ARSENICAL NEURITIS WITH LOSS OF OSSEOUS SENSIBILITY.—Charles Metcalfe Byrnes, after reviewing the literature on arsenical neuritis, reports a case in which the diagnosis was made with difficulty.

The patient, fifteen days after having had several attacks of nausea, vomiting, diarrhoea, and griping abdominal pains, noticed tingling and numbness in the hands and feet; followed by the early development of weakness in the lower extremities, associated with tenderness of the calf muscles and ataxic gait. These symptoms became intensified and in about two weeks he fell in the street because of weakness in his legs.

Among other physical findings there was noted the presence of wrist and foot drop; ataxia, sufficiently marked to cause inability to stand; and step-page gait when he walked with assistance. There was also general reduction in strength; this being more decided in the extensor muscles. The calf muscles were slightly atrophic and the interior tibial peroneal muscles were paralyzed. Sensory disturbances were found in both upper and lower extremities. The knee jerks and the achilles reflexes were lost and over both tibiae there was loss of osseous sensibility. While under treatment in the hospital—two months—the patient's temperature ranged from 96 to 100.5°.

After tabes had been excluded, the condition was diagnosed as multiple

neuritis. Not being able at first to determine the nature of the metallic poison which was supposed to be the cause, arsenic and strychnia were prescribed; with detrimental effects. Later it was discovered that 1.33% of arsenic was present in a can of baking powder used by the patient's family.

Other members of the family had complained also of recent gastric disturbances and the father subsequently developed tingling and numbness in the hands and feet.

The author comments upon the loss of osseous sensibility, as tested by the tuning fork, and calls attention to the occurrence of the same sensory deficit in *tabes dorsalis*.—*Jour. of the A. M. A.*

CHARLES D. FOX, M. D.

THE PROPHYLAXIS OF SYPHILIS.—By Dr. E. L. Keyes, Jr. (*Syphilis*, 1908). Individual prophylaxis is futile. As long as men indulge in illicit sexual intercourse, so long will syphilis exist. There is no preventing it. The condom is to-day, as it was in the time of Ricord, "a cuirass against pleasure and a cobweb against danger." Antiseptic washes have yet to prove their protective powers. Even cauterization of a torn frenum within six hours of the time of infection has twice (Hill, Ruggles) failed to prevent the subsequent appearance of syphilis. Yet many of our most aristocratic brethren insist that they do not haunt the dens where such diseases fester. They fancy that high price purchases immunity. No fancy could be more fallacious. A contemplation of the cases just recited may serve to impress the truth that it is possible to transmit the disease before you know you have it. And she who is kind to one may perhaps be generous to twenty in his absence. In short, there is no individual prevention of syphilis.

To control this disease it must be attacked as a plague. Naturally, the first attempts at control have been directed against the prostitute. "Here is the *causa teterrima*; let us wipe it out." And since prostitution refuses to be eradicated from any large community, the effort has been made to control it, and war has waged for many years between the advocates of licensed prostitution and the purists who have been described in delightful mixed metaphor as "closing one eye to the existence of prostitution while trying to stamp it out with the other."

Up to the present our Puritan blood has kept us Americans from considering the subject sanely. We still cling blindly to the theory that prostitution may be suppressed, though the history of every century and every country proclaims that it never has been. On the other hand, the adherents of relementation are little better off. They find that, at the expense of much effort, time, and money they can show no appreciable improvement in morals, no marked decrease in the incidence of venereal disease. The causes of their failure are chiefly three.

First, they attack venereal disease, yet make no effort to improve the morals of the community, and so leave untouched the foremost of its causes.

Secondly, they examine the prostitute at most once a week, present her with a certificate of cleanliness; and, before she returns, she will (according to Parisian statistics) have cohabited with from three to five men a day. So that (accepting the infallibility of the hasty and routine examination)

she has, toward the end of the week, risked contamination from 20 to 30 times. Manifestly such an assurance of cleanliness is not over-effective.

Thirdly, venereal disease can never be stamped out by the inspection of licensed prostitutes so long as unlicensed prostitution remains unsuppressed (and who shall suppress it?) and so long as the men are not examined as well as the women. Would the suppression of tuberculosis be taken seriously if only the tuberculous women were reported while the men were allowed to go scot-free?

The problem is a difficult one, and the solution is not yet; but, recognizing the prevalence of syphilis and of gonorrhea as well as the destruction of life and happiness they cause, it is surely essential that we, as medical men, should gravely consider not only the methods of their cure, but also the means of prophylaxis. These means are now being intelligently discussed throughout the country, especially in the various branches of the Society of Sanitary and Moral Prophylaxis. The few fundamental principles that have been generally accepted may be summed up as follows:

1. Absolute continence does not, in man or in woman, impair sexual instinct or appetite, nor does it diminish the procreative power. Moreover, the effect of continence upon the general health is highly beneficial.

2. Apparent exceptions to this rule, cases of general or of sexual neurasthenia, impotence, etc., occurring in persons who do not run to sexual excess, may always, on intimate investigation, be attributed to one of three causes: commonly to some concealed secret vice, less frequently to mental incontinence (the most degrading of all forms of incontinence in that it prostitutes the mind to constant contemplation of vicious subjects while covering this inward rottenness with an outward veneer of physical cleanliness), and rarely to systemic abnormality or disease.

3. Conversely, sexual immorality of any sort, besides tending to disseminate venereal disease, lowers the morals and assails the general health; for

4. Sexual intercourse, though undeniably productive of a sense of physical well-being renders it desired by all men and essential to many (once the habit is formed), is not comparable to such physiological needs as breathing air and eating food, but rather to smoking and drinking alcohol.

Note, for example, that it is a pleasure which becomes a necessity only from the same intemperate indulgence that makes alcohol or tobacco a necessity. Note, also, that the hold it gets on most men more closely resembles the morphin or cocain habit than the milder intoxication of alcohol and tobacco; hence the only hope of physical purity for most men lies in avoiding the first misstep.

5. Consequently, the most important prophylactic measure is the protection of childhood; not the futile protection of assumed ignorance, but the protection of intelligent instruction from a respected source, individual (parental, if possible) at first, perhaps collective later (not by books or tracts), and advancing in accord with the awakening instincts of the individual.

6. Moreover, it is the paramount duty of the physician to instruct every patient treated for venereal disease concerning the grave dangers of infection, especially in matrimony.—*Post Graduate*.

PRESERVATION OF THE APPENDIX.—Keetley, in the *London Medical Lancet*, says, (1) That transplantation of the appendix vermiformis, so that the whole or the greater part of it, from its root in the cæcum, lies permanently imbedded in the abdominal wall, will produce the good results of excising it; (2) that it is a practicable and safe operation; and (3) that transplantation of the appendix should in many cases be preferred to appendicectomy. He also attempts to prove that when constipation requires to be treated surgically, appendicostomy should be the operation chosen. The use of appendicostomy practiced or suggested up to date may be tabulated as follows: For colitis of various kinds, muco-membraneous, ulcerative, amœbic, syphilitic, tuberculous, etc.; certain forms of intussusception (to prevent recurrence, etc.); intestinal hæmorrhage; typhoid fever, cases of enterectomy and colectomy, as safety valve; intestinal distention in toxic conditions; the administration of nutrient enemata per appendicem, and constipation. And further, as first mentioned, there is appendicostomy as part of the technique in the conservative practice of transplanting the whole or the greater part of the appendix into the abdominal wall instead of removing it by an appendicectomy. Appendicitis is a dangerous disease, not because of the nature of the appendix, but because of its position. Its dangerous and even its serious, troublesome results are due to its relation to the peritoneal wall. Two of his cases indicate how trivial a malady even perforative appendicitis becomes when the appendix is securely imbedded in the substance of the abdominal wall. It is probable that the appendix has physiological uses, possibly, if not probably, of considerable importance, and that it is not the useless, merely vestigial organ it has been represented. But it has also a potential surgical value in the treatment of a certain class of abdominal troubles. Dr. Keetley has twice been unable to attempt appendicostomy in cases in which that operation was indicated, because the appendix had been previously removed. Metchnikoff believes that the degenerations of old age are to a large extent the effect of toxines manufactured by the bacteria which swarm in the large intestine. Among the facts bearing on this question are the great ages of birds, such as parrots and ravens, which have no large intestine. Appendicostomy, when used for regular, frequent, and considerable injection of water, at one and the same time feeds the blood with liquid and washes out of the large intestine its noxious germs and their toxines. The writer describes the technique of transplantation of the appendix. Among the points to be noted are the following: Appendix transplantation is a plastic operation, so that tension must be avoided. But patience and coaxing will often succeed in bringing the appendix to the surface. It should be laid in an easy position obliquely in the abdominal wall, by preference with its apex upward and outward. The appendix should not be opened for at least forty-eight hours, by which time it is adherent in its new place. In order to prevent gangrene a catheter should not be left in the appendix; if it be necessary, let the catheter be a very small one. The appendix is quite insensitive and needs no anæsthetic. Cases suited for parietal transplantation of the appendix are as follows: (1) The healthy appendix in some cases of colitis, and in some of doubtful nature; (2) appendices of which a fair length of the proximal parts is free from stricture, kink, ulceration, and perfora-

tion, or which can be opened toward the distal end and cured of their defects. The following cases are more or less unsuited to the operation: (1) obliterated appendices; (2) tuberculous, actinomycotic, and cancerous appendices; (3) appendices gangrenous or perforated near the proximal end; (4) appendices of which the case cannot be brought up to the parietal peritonæum without undue tension; (5) those of which the mesoappendix is not long enough to permit them to be sufficiently straightened out or to be brought into the abdominal wall without dangerously interfering with their blood supply, but this may be ignored if the appendix is not opened too early; (6) appendices which cannot be placed in good position in the abdominal wall without interfering with such drainage as the case may require. An extremely fat and thick mesoappendix is unfavorable, but not an absolute contraindication.—*Charlotte Med. Jour.*

THE MODERN VIEW OF THE TREATMENT OF FRACTURES.—Since the introduction of X-ray examinations the treatment of fractures has made more progress than it has in any one hundred years before that time. Two important things have been learned. One is, that in the ordinary fracture of the long bone, in a large percentage of cases, the replacing of the fragments into perfect apposition is impossible; and the other is, that we have led the public to believe that a fracture has not been treated properly unless the reposition is perfect. In fractures of the shaft of the humerus, femur and tibia, particularly, perfect reposition is very commonly not secured. We did not know this until the X-ray showed it. Good solid union had been secured, and restoration of function resulted; and it was assumed that the bones had been put back into normal position. Often it was lost sight of that the "rheumatism," neuralgia, eczema, edema, flat-foot, muscular weakness, etc., had any connection with an imperfectly reduced fracture of a long bone of the arm or leg which was solidly united and apparently of normal contour.

Now we know that palpation and measurements are not all sufficient to determine perfect reposition. Overriding and lateral displacement and even angular displacement may escape the most discerning eye. In many cases these conditions cannot be overcome without operation, and in most cases operation, with its additional traumatism, would do more harm than good. We must, therefore, be satisfied to secure union in a not absolutely perfect position, in many cases. This is easily proved after a fracture of these bones has been put up apparently to the satisfaction of the surgeon, by making an X-ray examination and observing how often defects of apposition are present. Happily the majority of such cases give a satisfactory functional result.

But now we come to the layman's point of view. He thinks of a bone as a stick or rod. When it is broken, he naturally wants the pieces put back in place; that is what he would expect a carpenter to do; and he expects the surgeon to do the same thing. Unfortunately the surgeon has led him to think that is what he can do. When a patient secures a useful limb after a fracture we have permitted him to think that the fragments were replaced into accurate apposition. Now, if he should see an X-ray picture of his fragments, he might be fearful lest the result should be poor. A jury is easily misled by these pictures.

It behooves the surgeon to teach the public that the reduction of a fracture is not an easy operation. Joining a broken stick is a simple thing because it is accessible to sight and touch; but a fracture may be compared to a stick surrounded by a mass of elastic bands, all attached to it and pulling in several directions, and which can neither be seen nor felt.

When we have put the public mind straight on this matter, there will be fewer incriminations and fewer suits for malpractice.—*Editorial—Amer. Jour. of Surgery.*

ZINC IONS IN THE TREATMENT OF OPHTHALMIA NEONATORUM.—The conjunctiva of the diseased eye was everted and a positive electrode which consisted of some cotton wool saturated with 2 per cent. solution of zinc sulphate was applied. The nurse held the negative electrode in the child's hand. The battery employed was an ordinary bichromate battery, which gave twenty volts and a half a milliampere current was passed for three minutes. Twelve hours after the application the inflammation was subsiding, and another application was made. Two days later the case was cured. In Dr. H. K. Ramsden's experience the case ordinarily treated by silver nitrate or protargol application (twice a day) would have taken fourteen days, and would have been an anxious one.—*The Homœopath. Eye, Ear and Th. Jour.*

WILLIAM SPENCER, M. D.

CALMETTE OCULAR REACTION FOR TUBERCULOSIS.—Barring out all cases of eye disease such as conjunctival hyperemia and simple conjunctivitis, Frederick File found that the reaction takes place in typhoid, cerebro-spinal meningitis, gonorrheal rheumatism, secondary syphilis, and even in eyes of apparently normal healthy persons, while in those cases of a demonstrable lesion, such as tuberculosis of the hip, spine, knee, cervical glands, etc., no reaction whatever took place. It is noteworthy, that many incipient cases also failed to react, and since early diagnosis of human tuberculosis appears to be almost the only positive hope of ultimate cure, this fact is especially to be deplored. Even when bacilli were present in the sputum, the conjunctiva was unaffected by the serum in twenty-one cases, while in twenty-one others, strange to say, the reaction was uniformly positive. This makes the chance of usefulness so nearly even that one is inclined to condemn at once the entire procedure, but when we recall that a like experience was gleaned from our first efforts with diphtheria anti-toxin, the outlook is not quite so dark. It was only, after considerable investigation and trial, that anything approaching a correct dosage was obtained, and likewise it may be that Calmette's reaction is still too crude and imperfect in detail to mean much to the clinician.—*The Homœopath. Eye, Ear and Th. Jour.*

WILLIAM SPENCER, M. D.

THYROID EXTRACT IN KERATITIS.—Dr. M. Radcliffe presents to the American Ophthalmological Society, last July, a new treatment for keratitis—thyroid extract. Of course the cases should be selected and carefully watched. In one deep and superficial inflammation, five drops of a fifteen grain strength solution was instilled into each eye three times a day, coin-

cidently with the administration of a five grain tablet of the extract, all the other medications being stopped. After two months, in which the case was growing worse, this treatment cleared the cornea markedly in four days, and ultimately vision became normal in one eye and two-thirds with the other.

In another case the cornea cleared rapidly upon being put upon thyroid extract internally, while the local measures were continued.

The same results should be obtained by administering the thyroid extract in small doses, say one to two grains three time a day.—*The Homœopath. Eye, Ear and Th. Jour.*

WILLIAM SPENCER, M. D.

DIFFUSE INTERSTITIAL KERATITIS.—Diffuse interstitial keratitis usually appears as a late secondary manifestation of acquired syphilis, or during relapses in the tertiary stage of the disease. The average time of development of interstitial keratitis is ten years. One case is reported as early as three weeks after the appearance of the primary sore, while another case is reported as appearing as late as twenty-three years after the infection. It usually affects but one eye, and runs a quick and lighter course than the cases due to inherited syphilis, and is seldom harmful to the sight. One case, however, has been reported in which the sight was entirely lost. The prognosis is favorable under proper treatment.—*The Homœopath. Eye, Ear and Th. Jour.*

WILLIAM SPENCER, M. D.

EARLY GETTING UP AFTER CONFINEMENT.—E. Martin has examined the effect in 100 cases at the Berlin Charite. The patients were allowed to leave the bed, but not to walk about much or to do any work; and this was permitted only to such patients who had not had prolonged labor, elevation of temperature, injuries, operative assistance, or pathologic changes in the heart, lungs, kidneys, or vascular system. These patients were allowed to get up from 15 to 20 hours after delivery. In the succeeding seven days they were allowed to be out of bed for two hours during the morning and afternoon. The morbidity in these cases involved 13%. The results observed were that involution of the uterus was not impaired; young women recovered very rapidly and their appearance quickly improved; no case of embolism occurred. The author is therefore inclined to recommend this early getting up under the conditions above named and in young women.—*Monatsschr. f. Geb. u. Gyn.* Vol. 27, 248.

THEODORE J. GRAMM, M. D.

THE HISTOLOGY OF MENSTRUATION.—Hitschmann and Adler have made a further contribution to their former splendid work concerning this subject. Fifty-eight cases were carefully examined. They divide the menstrual cycle into four stages, namely, the post menstrual, the interval, the premenstrual and menstruation. The changes taking place are as follows: During the height of the menstrual discharge, the mucous membrane collapses, the glands discharge their secretion, become narrow and straight. The surface of the mucous membrane frequently is exfoliated, but there is no regularity about this process. When the bleeding ceases

and sometimes during the same, regeneration begins. Immediately after the cessation of the bleeding, the surface of the mucous membrane is covered by a continuous layer of epithelium. Numerous mitoses appear in the gland epithelium and the cell proliferation is abundant. This post menstrual epithelial proliferation is especially noticeable in the gland formation. The glands grow in length and become wider. Their lumen is empty and their epithelium is in the resting stage. The connective tissue cells also proliferate. The mucous membrane becomes thicker. The formation of new cells which continues until the middle of the interval brings about a constant increase in size of the glands. They then become spiral. Toward the close of the interval and especially in the premenstrual stage, the epithelial cells enlarge two or three times in size, as also do the glands so that there are formed lateral enlargements giving the appearance of papillary projections in the microscopic field. The saw toothed appearance is produced by the spiral glands. The enlargement of the epithelium is determined by the secretion being formed in the premenstrual stage; the gland lumina are filled with secretion. The connective tissue swells so as to resemble decidual tissue. Since the glands are dilated in their depth, but their orifices rather narrow there is formed a rather compact surface and a deeper spongy portion; the mucous membrane thus acquires such similarity to decidual tissue as to make difficult the differentiation of a premenstrual membrane and a young decidua. When the bloody discharge takes place the mucous membrane collapses and remain so until the cycle is again terminated. If the hemorrhage does not occur in consequence of conception, the premenstrual membrane simply passes over into the mucosa of pregnancy. The hemorrhage is probably determined by a rupture of vessels and by means of a diapedesis of blood cells.—*Monatsschr. f. Geb. u. Gyn.* Vol. 27, 1.

THEODORE J. GRAMM, M. D.

MEASLES IN THE NEW-BORN.—At the meeting "de la Societe de Medecine Interne de Viena," held on the 18th of February last, Dr. M. B. Sperk reported the result of his researches on 592 cases of measles in the nursling. During the first year of life there is a refractory condition to the disease in the immature organism, and prevention can be readily obtained by isolation, but after this time the aptitude to contract the disease increases considerably.

The stains of Koplik are always seen at the beginning of the rash, but rarely at the prodromic stage. In weak sucklings the exanthema is almost insignificant, and at times very limited. It may also be absent, but in these cases you will find the stains of Koplik. The younger the infant the less pronounced the lesions of the mucous membranes. At the level of the erythematous patches the exanthema is more marked than in the face. Gastro-intestinal troubles are more rarely developed in sucklings than in older children. The prognosis of measles is more serious in the former, due to the respiratory complications which are liable to occur.—*La Semaine Medicale*.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

REMEDIES IN TYPHOID FEVER.—*Bryonia*. Some one has said "the more the typhoid the more the bryonia." Whoever said it said well. *Bryonia* has served us more often and more regularly than all other remedies combined. So much is this true that we have almost come to prescribe it routinely upon the reception of a fever case. Administered from the beginning, the temperature rarely gets beyond control, and we have been very fortunate in warding off the intestinal relaxations that are such a nuisance so often. The mental hebetude, the dulled expression, the besotted countenance, the dry, brown tongue, the foul breath, the sluggishness of functions, the decubitus and desire to lie quiet, the slowness of pulse as compared with temperature, these and other symptoms to be found in the symptom codex are the picture for *bryonia* in typhoid. Many of our cases have been carried through on *bryonia* alone, without a single constitutional or intercurrent.

Next to *bryonia* comes *baptisia*; but it has not been called for in anything like the number that might be expected from the praise it has received. Ever since Hale pronounced *baptisia* a remedy which would abort typhoid fever it has been used frequently and indiscriminately in the beginning as an abortifacient; whereas, *baptisia* is rarely indicated early.

Its chief characteristics are putridity and duality of consciousness, or, rather, a perversion of duality. *Baptisia* is a secondary remedy, always to be thought of as the patient gets mixed up, and as his breath and discharges become penetratingly foul; some one else is in bed with him; it is the other man who is sick.

These symptoms never occur in the first week. They doubtless arise from the effect of the typhoid toxin and the continued heat upon those centres of the brain that preside over duality of consciousness, hence it is the other part of us, the other fellow, if you will, who is sick and behaving badly. In this perversion *baptisia* is a classic; likewise where putridity predominates; and this, also, is always late.

Belladonna.—No small number of typhoid fever cases suffer severe headache, flushed face, injected eyes, dry mouth and tongue, nosebleed, general redness of skin. Here *belladonna* has served a good purpose; but it is not a long-indicated remedy; it relieves quickly or it does not; it will not carry a case clear through, as does *bryonia* or as does *rhus* or *baptisia*. But it is often indicated, and often helpful when ordinarily *gelsemium* or *veratrum viride* is prescribed.

Rhus Toxicodendron.—The early homœopaths were in the habit, as are too many to-day, of giving *bryonia* and *rhus* alternately to all their typhoid patients, the journal containing many brilliant cures by this treatment. The

pathogeneses of these drugs proclaim, however, that they are direct opposites in all their chief characteristics. This being true, they are not even analogously related and should not be prescribed conjointly.

If it is a bryonia case it is not a rhus case.

For patients with intense restlessness, constant tossing about, incessant throwing of arms and legs, bitter complaints about the bed, always too hard, muttering delirium that never lets up, nightly diarrhoea of a pea soup character, involuntary watery and offensive stools, tongue intensely dry, red at the tip and with a dry streak down the centre, extending from tip to base, rhus toxicodendron is without an equal.

As stated, in our cases it has not been very often called for, but when needed it has been needed badly and has done good work.

Lycopodium.—Kraft calls lycopodium the "yellow remedy." Everything is yellow, the skin, the sclerotics, the tongue, the urine, the fæces, the perspiration, the liver is swollen and torpid, the abdomen is distended with gas, borborygmus and flatulence are characteristic, the mind is as torpid as the liver, the patient is listless. Lycopodium is only an intercurrent, as a rule, and not often called for. But occasionally it is very helpful.

Sulphur.—Not often called for, yet a good passing remedy. The heat is dry and pungent, insistent and intense. It is worse toward and in the night. The skin is as dry as if burned, and burns the hand. The pulse is fast, for typhoid, the temperature extreme, and neither will come down and stay down.

The bowels are torpid, as with lycopodium, the urine sluggish and very red, staining everything, but not leaving the sediment of lycopodium. The bladder is paralyzed, full to bursting. Sulphur is a regenerator, a revivifier, an arouser of dormant forces, the clearer away of dyscrasial rubbish. Rarely will it be needed long at a time, an occasional dose in the high potency sufficing.

Remedies in General.—Besides the few which have been named there are many others not to be overlooked.

Natrum sulphuricum is another bryonia for typhoid states.

Psorinum is another baptisia for putridity.

Mercurius is another rhus for nightly aggravations.

Arsenicum is in a class by itself for crises.

Phosphoric acid and *muriatic acid* are allies in prostration.

Phosphorus is a giant in bronchial complications.

Carbo vegetabilis is the master's agent for collapse.

Nitric Acid, *China*, *Ipecac* and the snake poisons are hæmorrhagics to be carefully differentiated as needed.

Gelsemium has great muscular fatigue and high temperature for the first few days. It is a splendid febrifuge in superficial conditions, but has little scope in typhoid.—Dr. C. E. Fisher, in the *Journal of the American Institute of Homœopathy*, January, 1909.

PHYTOLACCA DECANDRA.—In the March *Homœopathic World*, Dr. Clark brings out the following valuable facts about this drug:

"Came to us from the Eclectics, who in turn obtained their knowledge of its virtues from the American Indians. Introduced to us and proved by Dr. E. M. Hale."

The kalii are very nearly related to phytolacca. Many symptoms are worse after sleep. In the mental sphere there are some peculiar symptoms: Laziness; disgust for business in waking in morning.—Indifference to life; melancholy.—Shamelessness, like that of *hyoscyamus*.—Over-sensitiveness (like that of *aconite* and *chamomilla*); pains intolerable.

Dulness is a great feature of the phytolacca headache, and giddiness is a frequent symptom. One patient to whom I gave it for a throat affection complained that she felt light-headed after each dose. Another patient had a violent pain in the back of the left eye and over the eyebrow, extending thence down the left side of the head. In the pathogenesis we find, "one-sided pain just above eyebrow with sickness in stomach," and "shooting pains from left eye to top of head." Many of the phytolacca head pains go from before backward. In general, pains go from within outward. Pains preponderate on the right side. A very peculiar headache of phytolacca is "slight pain in fore part of head with increased sense of hearing." There are three remedies which are very closely recalled by phytolacca—*actœa racemosa*, *sanguinaria* and *baptisia*. I will give presently an experience sent me by a correspondent of the antidotal action of these remedies. My correspondent is very sensitive to drug action, and a very close observer. His experience, it will be noted, confirms one of the symptoms in the proving—"far-sightedness." This may be put alongside the "far-hearingness" that goes with the headache.

A number of symptoms refer to the bones and integument of the face, and a clinical observation of a specific effect on the lips has been well confirmed.

Two curious symptoms of phytolacca are: "Chin drawn closely to sternum by convulsive action of muscles of face and neck;" and another is "Irresistible desire to clench teeth." These are both part of the tetanic action of the drug.

The antidotes of phytolacca are milk, salt, coffee, opium, nit. sp. dulc., bell., ign., merc., sulph. In addition to these must be named act. r., sang., and bapt. These both antidote phytolacca, and are antidoted by it.

Supplementary to Dr. Clark's introductory remarks (made at the meeting of the Cooper Club) the following were contributed by others present.—*Hom. World*.

By Chas. S. Spencer, L. M. S. S. A., (Lond.), Ashton-under-Lyne:—"My experience in the use of phytolacca has been limited mainly to diseases of the breasts and throat and rheumatism. I have had many cases of threatened abscess of the breasts in nursing women, but not one has gone on to suppuration. I have cured several bad gathered breasts after much poulticing and the use of the knife in other hands have left them tender, painful with debilitating sinuses. In one case three inches of india rubber drainage tube was found at the bottom of a large sinus.

"I have no fear of gathered breasts in my patients, first, because I have recognized that they are most often due to infection through the open door of a cracked nipple, and consequently I insist upon special care being taken of the nipples; secondly, because the indicated remedy very promptly relieves the engorgement and inflammatory symptoms of pain, redness, heat, and swelling which usually precede the stage of suppuration. If no other medicine is symptomatically indicated I give a few doses of *bryonia* 1 and

apply spongio-piline saturated with a lotion of phytolacca, 20 drops to a half pint of hot water. Frequently by the next day the danger is past, and the medicine may be suspended or given very infrequently. In any case it is better not to continue the bryonia too long, as it inhibits the secretion of the milk and the flow may not be so readily re-established. If from the first the breasts are very hard and 'caked' phytolacca 1x. 2h. is given and the lotion used as above. Seldom have any other medicines been required."

By Dr. Simpson:—"I have frequently seen the happiest results follow the use of phytolacca when small white patches studded the fauces, when these were obviously caused by noxious emanations, either from sewer-gas, or decaying animal matter, when fever was present, with a soft small pulse, offensive breath, and great languor, with muscular pains in various parts.

"It is very useful for hardness and suppuration of the female breast, with large gaping fistulous ulcers, discharging a watery fetid pus, with great sensitiveness: when nursing causes pain to radiate for some distance, down the arms and back. Rheumatic affections of the shoulder and arms, like electric shocks, are the pains which indicate its use, worse in the night and in damp weather. The feet burn, the middle of the long bones (humerus and thigh) are chiefly the centres of pains; the periosteum of the tibia becomes very tender and painful at night (suggesting its use in "secondary symptoms"). The glands about the neck become swollen and painful, as well as those in the axilla. It is reputed as an absorbent of redundant adipose tissue, and is perhaps as safe an expedient as any that have been suggested for that purpose, recommended in $\frac{1}{4}$ -grain doses of the powdered berry daily.

"Hæmorrhoids, obstinate cases, with sanious discharge, heat, and urging are relieved by this drug, especially when they occur in rheumatic states or subjects, and are attended by pains which shoot to anus. The bladder is the seat of pain before and during micturition, the urine being dark red."

Another point brought out in the symposium was "that phytolacca should be associated with baptisia in the rheumatic symptoms of influenza." We have found the trio, bapt., phyt. and eupater perf., all valuable in the treatment of influenza, grip and the Southern Fever "Dengue." Phytolacca especially with the rheumatic and throat symptoms especially when associated with enlargements of the cervical lymphatics.—(Ed.)

Phytolacca will often prevent the necessity of the removal of an indurated breast if given early.

Two other remedies dispute this field. One is conium mac., the other graphites, especially where an old scar following weed, and probably a lance, becomes inflamed.—(Ed.)

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

HEROIN.—(*The diacetic ether of morphin*) is a white powder almost insoluble in water, but soluble in alcohol. The salt employed most frequently, however, is the *hydrochlorate of heroin*, a crystalline white powder, *very soluble in water*, but less soluble in the other solvents.

It is reckoned as a *hypnotic* and *sedative*, analogous to *morphine*, but exerting its calming action in an special manner on *cough* and *dyspnœa*. Under its influence, the respiratory movements increase in amplitude, and on that account it has been employed with marked success in the *cough of consumptives* and in the *dyspnœa of asthma, emphysema, bronchitis* and *pulmonary tuberculosis*.

The *intolerance* of this drug becomes manifest by headache, vertigo, nausea and a sensation of lassitude, and *when the habit is established (heroinism)*, the dyspnœa is distressing, incessantly claiming the ingestion of the new doses.—*Formulaire Magistral*.

SIMILIA IN ANIMAL FOOD.—Under the singular title of *Apology of Cannibalism*, Dr. Carnot, of the *Progres Medical*, Paris, gives us, in the Bulletin of this journal (January 16, 1909), an interesting article on the "Nutrition of the Organism by its Own Flesh." He states that among certain savage races the eating of each others' flesh is a reality and that up to this date we have thought them to be wrong, but, behold, that curious researches have come to give them physiological right. In a very engaging article which appeared two years ago, Magnus-Levy (*in von Mordern Pathologie des Stoffwechsels*, 2 Edit. Berlin), conformable to theoretical provisions of E. Fischer and of Abderhalden, developed the hypothesis that proteid assimilation, in animals fed with the flesh of their like, must be affected with the minimum amount of waste. And now, that is exactly what M. H. Busquet has just verified experimentally in the laboratory, under the direction of Prof. Gley.—*Busquet. Valeur nutritive d'une albumine spécifique et d'albumines étrangères chez la grenouille. S. Biol.*, 19 dec., 1908.

Buquest studied, under the point of view of their ponderable variations, first, frogs fed with the muscular flesh of other frogs, and then frogs fed with veal or mutton. It was easy to establish that the Batrachian fed with the flesh of their congeners maintained their weight equilibrium with a share of albumin considerably inferior to that of the frogs nourished on veal or mutton.

In another series of experiments, after a previous period of fasting, frogs were nourished, some with veal or mutton, others with the muscular flesh of their kindred, but the latter reached, in a given time, a ponderable increase, not only equal, but even superior to that of the animals held as

evidence, and this while receiving a quantity of albumin perceptibly less than the former.

These interesting confirmations agree in other respects, with a whole series of well-known physiological facts. As with the sera there is a great difference of assimilation and of toxicity, according as the injected serum is derived from an animal of the same species or not. In *grafting*, above all, the fact is manifest. If one grafts, as we have done formerly with Mlle. Deflandre, dark flesh taken from a partly-colored animal into white flesh, the black graft enlarges, and one can easily follow the development by the extension of the dark spot. But if the grafting is taken from the same animal upon which we make the implantation, it grows quicker than if derived from another animal, even when of the same species. *Graftings* exchanged between animals of the same issue or brood, develop better than between animals not related. Finally, it is the rule for graftings to miscarry when they come from different species or even from a near class. We have established the same facts in grafting of the mucosa, and the same have been verified in grafting of the thyroid glands (*Christiani*), and in the transplantation of members (*Carrel and Guthrie*).

There is then a true *specificity* in the tissues and fluids of the organism, and whether the point in question is *tissue grafting*, *injected sera*, or *absorbed food*, the adaptation will always be more perfect when the tissue, the serum, or the food proceed from the very animal into which we introduce them, or from a cognate animal. The adaption is always less effective if the exchange is made between different species.

From these observations one can draw some philosophical deductions of general order which we let the reader pursue. We only wish to make here a remark from a point of view strictly nutritive.

We know that carnivorous animals and people have an energy, and frequently a ferocity far superior to those of the herbivorous.—*Le Progres Medical*.

FULGURATION.—*Alto Frequent Cytolysis of Cancer. Our Treatment of Malignant Tumours, by High Frequent Sparks and Effluves*, since called "*Fulguration*."—By Dr. J. A. Riviere, of Paris. Under this title Dr. J. A. Riviere, of Paris, the well-known physico-therapeutist, has just published in the "*Annals d'Electrobiologie et de Radiologie*," of Professor Doumer, of Lille, France, a critical study in which, following up his communication to the "*International Congress of Medical Electrology and Radiology*," Paris, 27th of July to 1st August, 1900, he proves his incontestable rights to priority.

In his communication (already ten years old), Dr. Riviere spoke of the cytolytic action of high frequency sparks on the cancerous cell and of the necessity of employing these same sparks and effluves in the raw surgical wounds (*breches operatoires*) of malignant tumours to disinfect and drain them, in order to prevent recurrence. He added that this special mode of application of electricity appeared to be, at the moment, one of the only therapeutical means to be tried in case of inoperable tumours. The word "*Fulguration*" since given to this method has established an uncertainty as to the method and its author.

In his work Dr. Riviere shows that the "blowing of air" or of carbonic

acid—which has been added to his method—is absolutely useless, and that for this reason is the burn produced by the spark in its contact with the tissues; he adds that the electrode commonly employed is defective, because it is traversed in its whole length by the conducting wire, which provokes short circuits in the operator's hand. The electrode employed by the "father" of the method only receives the current in the active part.

In his communication of 1900, Dr. Riviere said in reference to high frequency sparks and effluves: "They first produce a thermo-electrical chemical action which has the effect of eliminating the neuplastic tissue and, if one admits the parasitic theory, of destroying the micro-organism and their toxins; and in the second place, they produce a curative tropho-neurotic action, which brings back the vital processes to the normal state. There is no question of employing the thermo-electro-chemical action to eliminate large tumours, for which ablation should be preferred; but to this mechanical treatment should follow the preventive and curative treatment of recurrent cases. The high frequency currents and, in particular, the mono-polar effluves of Oudin's resonator seems to exercise this action by modifying the vitality of the regions freshly contaminated by the surgeon's knife, after having disinfected and drained them."

This special mode of application of electricity appears to be, I repeat, one of the only therapeutical means we have at present, for cases of inoperable tumours.

With reference to the *Curette* (which is lately often spoken of), Dr. Riviere considers that its use is detrimental rather than useful, and that it is preferable to have several seances of alto-frequent scintillation, in order to continue the elimination of the morbid or contaminated cells.

As for the *modus operandi*, Dr. Riviere repeats the formula which he gave in his address to the Congress at Rome:

"The voltage and intensity of the sparks and effluves varies with the pathological equation of the patient; this mode is before all a question of appreciation for the electro-therapeutist and the surgeon."

Of our confrere's work it results, without doubt, that the method, afterwards renamed "*Fulguration*," belongs to him in spirit, as in letter; and I am glad of the occasion offered to give the facts of the case and to help correct an error which reaches the sacred rights of priority and of scientific truth.—Dr. Mazery, of Paris.

NUMERICAL ATROPHY OF TISSUES.—Dr. Maurice Renaud has been able to observe that after all *local lesions in children* (cutaneous, osseous, articular), there supervenes a developmental trouble of the tissues of the locality affected by the lesion. He has made a clinical and experimental study of the subject.

The numerical atrophy is gradually established by a diminution of the proliferating power of the cellular elements. These elements are less numerous in consequence, but perfectly differentiated. It is so much so, that the atrophied tissues, while diminished in volume, they retain all the properties of normal tissues. The segments of the body suffering from this numerical atrophy do not differ from the symmetric segments, but in the reduction of their volume. Only when considerable does this atrophy bring about functional troubles.—*La Presse Medicale*.

RACHISTOVAINISATION.—(*Conference by Dr. Chaput.*) Stovain was introduced by Dr. Fourneau in 1904, and its value as a local anesthetic in surgery has been well established by Drs. Reclus and De Lapersonne. But to Dr. Chaput we are indebted for this drug as a rachianesthetic agent.

The technique of the author is as follows: He makes a puncture with a long, exploring needle, with lateral eye and mandrin, and withdraws first from 10 to 15 cubic centigrammes of cephalorhachidian fluid, then he injects from 3 to 5 centigrammes, the maximum of *Stovain*, 4-100 solution, made isotonic by the addition of Na Cl. The *anesthesia* commences after four or five minutes and lasts from 45 to 60 minutes. After the operation the patient should rest in bed for a few days.

Stovain, administered in this way, is indicated in operations of the *perineum*, of the lower limbs, and in non-strangulated hernia, and is less dangerous than general anesthesia. It allows to measure more exactly the quantity of the anesthetic, and on this account the surgeon can operate alone.

The *contra-indications*, being numerous, they should be well known. It should never be employed in individuals above sixty years of age, for there is danger of cerebral hemorrhage, neither in those profoundly infected, very anæmic, cachectic, or injured (*albuminuria, diabetes, hepatic or cardiac lesions*). It is also contra-indicated in *strangulated hernia*. Operations on the superior half of the body demand doses too considerable; and for *laparotomy* one must have a great experience in the handling of this agent.

Stovain fails sometimes to produce anesthesia, but this only happens in acute affections, or very painful, or when the patient has not enough confidence in the method. The accidents, cephalalgias, and the incontinence of urine or of other matters, are easily avoided or cured by rest in bed, and the abundant evacuation of cephalorhachidian fluid. About post-operative paralyses, usually of hysteric origin, we can say that they have been always transitory.

The cases of death published, have been due to the existence of a manifest contraindication, or to the employment of too heavy doses.—*Le Presse Medicale*.

THE PARAPLEGIES OF THE AGED.—(*Societe de l'Internat des Hopitaux de Paris.*) Dr. Maurice Faure asserted that the paraplegies of the aged have a complex origin (*arteriosclerosis, atheroma, gaps in the nervous substances, alterations of the motor-spinal cells, etc.,*) and clinical signs of a great variety. The point of departure seems to be a vascular sclerosis, and the resulting general disorder of the circulation and nutrition. In regards to evolution, prognosis and treatment, it seems also as if there was a certain interest to distinguish two varieties of senile paraplegia.

1. Some are true spasmodic paraplegies, with medium or small contractions, exaggeration of reflexes, muscular debility and relative motor impotence. In this class of patients we are justified in employing the passive exercises, which Dr. Faure has indicated for pure, spasmodic paraplegies (1903, 1906). The amelioration is slow and incomplete, but durable.

2. The others are true false paraplegics. They take short steps and seem hardly able to drag along, raising the feet as little as possible and

stumbling over objects. But upon examination, one notices that the reflexes are little or no modified, that the passive movements are easy, that no notable contraction or retraction hinders them, that the voluntary resistance of the subject to impressed motion, shows a more than sufficient force, and finally that the commanded voluntary movements are made with precision and amplitude. Moreover, after a few days of impulse and methodic voluntary exercise, a true re-education of the walking is obtained, and from a dragging along with steps of 25 centimeters, they end by walking with a lively gait of 75 centimeter steps. In these cases, there is simply a disorder of the *automatic mechanism of walking*, but no trouble of the elementary constituents of this act (muscular force, co-ordination, sensibility, motor will, &c.). The amelioration thus obtained, is by other means than those indicated for the preceding variety, and it is yet distinguished by the fact that it is rapid, easy, but inconstant and often transitory.

Dr. Grasset, in the discussion on the senile brain, at the *XVI Congrès des médecins alienistes et neurologistes*, (Lille, Aug., 1906), has already pointed out similar facts and made the same distinction; and it seems as if his opinion has been supported by the facts and conclusion mentioned by Dr. Leri and Dr. Meige in their reports.—*Revue neurologique*, p. 764, 30 *Avot*, 1906.

THE PROGNOSIS OF MEASLES COMPLICATING SCARLATINA.—The seriousness of the association of *scarlatina and measles*, and particularly of measles complicating scarlatina, has been proclaimed by all authors. Dr. Gouget has collected 408 cases of *post-scarlatinal measles* in which the mortality has been exactly one-third. *Bronchopneumonia* is the chief cause of death, and this special frequency is attributed to the facility with which a descending auto-infection takes place, due to the septic state of the bucco-pharyngeal space. Dr. Gouget, however, had in his ward for *scarlatina*, 39 children suffering from internal *measles*, which got all well, without a single case of broncho-pneumonia being observed. Of these cases 9 were not older than two years, and 23 were yet under the influence of divers complications of scarlatina. In 10 of the little patients the complication consisted of ulcerous or pseudo-membraneous sore throat, which developed at the outset of the measles, showing what little influence has a descending auto-infection in the production of *morbilious broncho-pneumonia*. Dr. Gouget attributes these happy results to the good hygienic conditions of the hospital, to the antisepsis, and principally to the early (thanks to the sign of Koplick) and individual isolation of the patients.

Dr. Louis Martin: "The communication of Dr. Gouget plainly shows that measles, even *secondary measles*, is mild when one avoids secondary infections." Dr. Martin has practiced *individual isolation* at the Pasteur Hospital, and in 8,000 patient treated he only had observed a single case of internal contagion. The individual isolation is far superior than ward-isolation. The death rate from measles, at the Pasteur Hospital, has always been small: 4 per 100. This statistics covers 700 cases of measles. Two hundred children under two years gave a death rate of 10 per 100; from two to ten years, the mortality was less than 2 per 100, and in the adults 2 per 100. It is principally in measles that individual isolation gives such good results.

Dr. Dufour has also ordered individual isolation in *measles*. He has reported very few cases of internal contagion. He also attributes this result to the hygienic measures taken by the *personnel*, and to the frequent washing of the hands. The statistics has been good. Of a great number of adults treated, he only lost one case of *measles*. In the very young infants, the mortality has been 12 per 100.

Dr. Chantemesse remarked that in these appreciations, we should take into account the number of persons coming in contact with the patients. On the other hand, if in *measles* there is no need of aeration, in other infections it is useful, and, from this point of view, in typhoid fever for instance, the large wards are often preferable for isolation to the small rooms which in a hospital, are necessarily limited.

Dr. Martin insisted, also, in the need of hygienic precautions by the staff. Drs. Rist and Ravaux extolled the use of rubber gloves, which permit a vigorous asepsis and frequent washing.

Dr. Lemoine (Val-de-Grace) does not take much stock in contagion by a third person, provided, of course, the needed hygienic rules are observed. —L. Boidin—*La Presse Medicale*.

CANCER TREATED BY FULGURATION.—Dr. Juge, of Marseille, presented to the *Societe de Medecine de Paris* a series of cases of severe cancer which he has treated successfully by the method of fulguration. All these patients had undergone sparing excision followed by *fulguration*, and were cured rapidly. At present, their scars are perfect.

Among these patients, there is one with a true circular cancer around the mouth, who has had three relapses after surgical operations, and who is actually in an excellent general state, with cicatrization nearly completed. The pains, which were atrocious, have completely disappeared.—*Journal des Praticiens*.

A NEW TREATMENT OF CIRRHOSIS.—This is certainly a new method which may supplant or be supplanted by others, as usually. It consists, not in the repair of the hepatic parenchyma by a rigorous hygiene, as it has been done up to the present, but to cure *cirrhosis* by destroying the fibrous tissue. A noble purpose, which certain authors, and among them Moerlin (*Munchener med. Wochenschrift*, July 7, 1908), pride themselves to have attained.

For this treatment a substance called *fibrolysine*, which has given good results in certain cases of ankylosis, is employed. It is a solution of *thiosinamin* in water, and has the advantage of dissolving only pathological fibrous tissue, but no solid normal tissues. The selective power of this substance is such, that Moerlin after its injection, two or three c.c., two or three times a week (in the hepatic region or subcutaneously), was able to observe marvellous phenomena.

After the sixth injection, the condition was very much improved and all signs of hepatic insufficiency had disappeared. It is just to add that the final result is wanting. It is to be regarded also that this *fibrolysing treatment* cannot be examined during its anatomical action. And we should bear in mind, that the spontaneous evolution of *cirrhosis* is full of similar fleeting periods of amelioration, not needing *fibrolysine* to determine them. —*Journal des Praticiens*.

PERIPHERIC ORIGIN OF TUBERCULAR INFECTION.—Among the numerous ways of penetration of the Koch's bacillus, two seem to have important preponderance; through the lungs and through the intestines. It is to the latter that Calmette and his pupils give the greatest importance. It would be premature, however, to come to generalizations by their declarations. The researches of Babes, in 1904, demonstrated the reality of another route of invasion, namely the skin. The *cutaneous penetration* without eroding the skin, and a simple rubbing with Koch's bacillus suffice to produce an experimental tuberculosis in a guinea pig. Nouri, at the Bacteriological Institute of Constantina, obtained the same results, and more recently Professor of Courmont and Lesieur, (*Lyon*, 1907), have studied this mode of inoculation on the guinea pig, the calf and the rabbit. M. Georges Chanoine (*Lyon*, 1908), sums up their experiences and draws from them pathogenic conclusions.

These authorities have amply demonstrated that on the guinea pig, the calf and the rabbit, the skin, even when intact, does allow freely the entrance to the bacillus of Koch. The bacillus may even enter without leaving any local traces of its passage. In the guinea pig the neighboring ganglia become tuberculous and the infection reaches slowly the lungs by the lymphatics. In the rabbit the virus determines at the first onset a *tuberculosis* without any cutaneous or lymphatic lesions, hence the extreme difficulty to precisely state the point of departure of a bacillary infection.

More convincing still is the fact that if we place guinea pigs, with superficial excoriations on the skin of the head and of the neck, in an atmosphere rich in bacillary dust, they nearly all become tuberculous, while guinea pigs, proofs, without cutaneous erosions, subjected to identical conditions, remain always free from infection. The parts infected are first the cervical ganglia, then the tracheo-bronchial ganglia and finally the apex of the lung.

The pulmonary generalization takes place slowly, with frequent production of cavities; experimental evolution which can be compared with that of human phthisis.

These experiments allow us to conceive certain modes of contamination in man. A slight lesion of the skin or of the dermo-papillary mucosa may frequently be the point of entrance of the infection, and this penetration is easier when the point of entrance is most exposed to the exterior infection. It is for this reason that the question frequently arises, if a man has been infected by the skin or mucous membranes of the face, or by the hairy scalp. The course of the intruder is as follows: Carried away by the lymphatic vessels, after leaving traces of its passage at the point of inoculation, or after traversing the integuments without modifying their structure, the bacillus comes to develop in the ganglionar masses of the neck, and of the mediastinum, and progressively approaches the lung, which it is not late in invading.

This conception does not appear improbable. Side by side with the respiratory origin so frequently invoked, with the digestive origin recently brought to light, we should reserve an important place for the transcutaneous or transmucous origin of *chronic pulmonary tuberculosis*.

Prophylaxis and hygiene have here a good soil. Like the respiratory and

digestive tracks we should protect the external integuments against all infections.—*Journal des Praticiens*.

ANOTHER VALUABLE RECOGNITION OF HOMOEOPATHY.—Another honorable name added to the list of those liberal, high-minded characters who of late have come out to vindicate *Similia* and the *minimum dose*, and to wipe out the wrong done to a man who was ahead of his time when he proclaimed to the world the results of *pure experimentation* on the healthy human organism, and the efficacious application of the *Similar* in the treatment of disease.

This time the acknowledgment came from Dr. Amalio Gimeno, Professor of Therapeutics of the Medical Faculty of Madrid, as well as ex-Minister of Public Instruction, who during his dissertation on Anti-tuberculous Therapeutics, held in the *National Congress of Tuberculosis*, held in Laragoza, Spain, in October last, proclaimed Hahnemann a genius. Hahnemann, he asserted, foretold at the beginning of the XIV century, the modern routes which science would take, and I regret to have offended him and his followers in former years.

He expressed his sincere feelings on the subject, as follows: "What I have stated is so positive, that I, the author of a work on Therapeutics, published in Valencia, 25 years ago, and a text-book in the Universities of Spain, highly deplore to have had devoted in said work some depressive pages to Hahnemann and his disciples, a wrong which modern discoveries are now committed to mend; *pages I wish I were able to tear from my book.*"

It certainly looks as if we were commencing to get due justice from our enlightened confreres at the other side of the fence.—Reported by the *Revista de Medicina Pura*, Barcelona.

BOTHROPS LANCEOLATUS.—From the writings of Farrington, Sieffert, Ozanam and Calmette, &c., we may sum up the action of *Bothrops Lanceolatus* and its application to disease, as follows: 1. The venom of this snake, like all the *powerful hemolytic toxins*, causes disintegration and degeneration of the blood, and, like *Crotalus*, is distinguished from *Cobra poison* by its greater activity, especially, as regards the local effects (*adema*, *gangrene*, *necrosis*, &c.). It attacks prominently the cells of the central nervous system, and seems to have an especial action on the posterior part of the third left frontal gyrus, usually termed Broca's Convolution. Hence, it does not seem to produce a genuine paralysis of the organs of articulation, like *Naja*, but a trouble of the speech, which consists in the impossibility of expressing thoughts by words, and in the fact that the centre of verbal expression does no longer transmit words, as in the normal state.

2. The *bite of Bothrops* is announced by a sudden, acute pain, often accompanied by syncope. The parts become blue, swell suddenly and shriveled. Constant attendants of the local pain are also vomiting, fainting, trembling, convulsions, cardialgia, and invincible somnolency. Death may occur after a few hours, sometimes after days of intense suffering. Those who survive linger in protracted illness, and due to ulceration, gangrene, necrosis, &c., the limbs are often mutilated or cut off. It is claimed that like *Crotalus*, *Bothrops* causes the largest number of deaths.

3. In *favorable cases*, the reaction is always slow and gradual, with a diminution, or a perversion of the faculty of expressing ideas by speech (*confirmed aphasia*). In many cases the sensibility becomes blunted and the phenomena may end in local anesthesia. Common paresthesias are: numbness, formication, itching, crawling and burning, and paralysis, especially of the right lower limb, has been recorded. The suffering may have a steady course for years and become distressing by attacks of cardialgia, anguish, and vertigo. Lameness, abscesses, and even gangrene may supervene when least expected. It is said that old cicatrices break open, bleed and may become gangrenous. Hypochondriasis is a persisting symptom.

4. According to various observers in *severe cases*, there is swelling around the bite, which is first pale and cedematous, soon turning livid, and finally extends to the whole limb. In some cases, the bite is soon followed by heaviness of the leg and inability to stand on it, and then a profound prostration set in, often attended by repeated fainting spells. Voluminous cedema with a feeling of impending paralysis has been noted by some, and others have reported enormous swellings, with accentuated numbness of the part bitten, and even complete insensibility of the limb affected. Still others allude to acute pain, cedema, vomiting, tetanic spasms, and elevation of the temperature, with crisis of profuse sweating. According to our Dr. Seiffert, of Paris, the tumefaction is attended by a distressing sensation, radiating to the epigastrium and by an indefinite malaise or general suffering; then follow nausea, vomiting, inexplicable lassitude, frequent dizziness, embarrassment of ideas, somnolence, and a deep coma, which may terminate in death. At the same time the pulse and respiration are lowered, the cutaneous surfaces are more or less dark or livid in color. Moreover, the extremities are cold, the body is bathed in a cold, clammy sweat, and repeated fainting spells end in death, which is the result of cerebral or pulmonary congestion. On the other hand, the amelioration of the condition usually becomes manifest towards the fourth day, by profuse sweats and a gradual diminution of the somnolence or sopor. Seiffert gives the right side of the body as the one particularly affected. The only renal symptom recorded is hematuria, which seems very rare indeed.

Homœopathy has employed *Bothrops* with good results only in *aphasia* (Farrington) and *diffuse phlegmon*, but there is no doubt that it may become a worthy rival of *Lachesis* in gangrenous conditions. Moreover, its pathogenesis, though fragmentary, reveal its indication in obstinate ulcers, lipathymas, cardia-asthenias, and asystolic conditions, as well as in pneumonia, necrosis of bones, and hypochondriasis. And a future proving of this *hemolytic poison* may lead us to its employment in many infectious fevers with qualitative changes of the blood.

BOTHROPS LANCEOLATUS COMPARED WITH LACHESIS MUTA.—While *Lachesis* seems to attack both the blood corpuscles and the endothelium of the walls of the vessels, *Bothrops* appears to be more concerned with the cells of the central nervous system.

Physiologically they are fully differentiated. *Lachesis muta* is *oviparous*, in fact, it is the only *pit-riper* or *crotaline snake* known to lay eggs. *Bo-*

throps lanceolatus, on the other hand, is a *viviparous ophidia*, bringing forth living young to the number of from 10 to 24.

The eggs of *Lachesis* are about $1\frac{1}{2}$ inches in length, creamy white in color, with a soft shell. This ophidia deposits her eggs in a sort of a chain, leaving them to be hatched in a warm situation.

In *Bothrops* the eggs are hatched inside the body. Her young are about 16 inches long and have a bright sulphur-yellow tail. At birth they are fully provided with fangs, and leave the mother at once to shift for themselves. As in the mother, the color is variable; they shade from brown-yellow to red, and when older from gray to blackish. Like the mother also they are very lively and vicious.

With such data on hand, all controversy should cease.

BIOLOGY.—Drs. Pi Suner and Turor, of Barcelona, Spain, have undertaken a series of experiments with dogs rendered *diabetic* by the total extirpation of the pancreas. They have reported that the dogs which lived several days after the extirpation, without any septic complication, did not frequently exhibit (provided they were not subjected to a carbohydrate diet) any *pancreatic glycosuria*, which, in general, is considered constant. Of 63 dogs, 26 did not show any indications of manifest glycosuria, or *hyperglycemia*.

Our results, they said, may be summed up, as follows: Without being able, at the present time, to elucidate the cause of such a variation, we must admit that the dogs operated for the removal of the pancreas and under a proteid alimentary regimen, are not always glycosuric. On the other hand, they are constantly so, if they receive hydrocarbons as food. But, whether they are *glycosuric* or not, they are always *hyperazoturic*, and we find in them a sort of antagonism between the urinary excretion of urea and that of glucose, a fat which seems to depend on a retarding action which the pancreas exerts upon the disintegration of the proteid molecule.

In one word, these animals found themselves in the same state as a patient at the onset of *diabetes*, what shows the fundamental unity of *nutritive disorders* in all the varieties of diabetes, and, while the dogs deprived of the pancreas, are not all *glycosuric*, we can affirm that all are *diabetic*.—*La Semana Medica*.

APIS.—The first effect of a violent stinging is sometimes nausea, with a deathly sickness, a tightness in the chest with a sense of suffocation, desire for cold air, and an aversion to heat, with considerable chilliness. Even a few stings have been known to cause death.

Apis attacks the vital current forces, for the patient feels strangely as if about to die yet no fear of death; prostration even to faintness; tongue can hardly be protruded. One other department of its usefulness is the marked influence it has upon the skin, which becomes waxy, edematous, puffy, the eyes become banked with edema above and below, there is great pitting on pressure; if there be eruptions they appear rose colored, not the dark red of aconite, or the scarlet of belladonna, or the dusky of lachesis. Hence, we think promptly of apis in boils on such a surface and of this pinkish cast. Erysipelas same; and so with other eruptive diseases. And with these eruptions there is much itching, burning and stinging.—*Dr. Frank Kraft*.

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THE DIAGNOSIS OF DISEASES OF THE HEART.

BY

GEORGE FREDERICK LAIDLAW, M. D., NEW YORK.

An address delivered before the Philadelphia Academy of Medicine, March 16, 1909.

MR. PRESIDENT, LADIES AND GENTLEMEN :

THE subject of diagnosis of the diseases of the heart has varied very much at different stages of medical progress. The ancients knew nothing of diagnosis of heart disease for they thought that the heart was never sick. They thought that the heart had mysterious self-protective power that prevented its becoming ill. In those days, in the surprising lack of curiosity about human anatomy, dissections of the human body were rarely or never made. It is true that Galen, from his dissections of animals, finding various lesions of the heart, reasoned that it was probable that similar affections occurred in human beings; but the weight of medical opinion was in favor of the heart being able to protect itself from disease. It was not until the renaissance and the rise of anatomical curiosity in the sixteenth century that it was actually demonstrated that the human heart, like other organs of the human body, could become diseased. Morgagni, the great dissector of the eighteenth century, described a number of cardiac lesions, post mortem, but at that time the diagnosis of diseases of the heart during life was not possible. The first real steps toward diagnosis of the heart disease during life were taken by Auenbrugger, of Vienna, who found out how to determine the size of an enlarged heart and

pericardial effusion by percussion. This work was furthered by Corvisart and especially by Laennec, inventor of the stethoscope and the first man who, by auscultation, diagnosed a valvular lesion during life. There followed a period of enthusiastic auscultation of cardiac murmurs. Later, about forty years ago, interest in the condition of the heart walls developed, and the diagnosis of the conditions of the cardiac muscle became a matter of consideration. In recent times delicate instruments, such as other speakers will exhibit here to-night, the sphygmograph, the sphygmomanometer, have been devised. You see, then, that our conception of what constitutes a diagnosis of heart disease has varied with the amount of knowledge that we possessed at any given era. One hundred years ago, a physician recognized by dropsical legs, dropsical abdomen and shortness of breath that the heart was sick and this, for him, constituted a diagnosis of heart disease. But this is no longer true. A physician at the present day who treats a patient for many months and finally by the development of dropsy of the legs, dropsical abdomen and oedema of the lungs or shortness of breath, at last makes a diagnosis of heart disease, is not making a diagnosis. He is making a mistake and is open to the charge of carelessness and neglect. To-day a physician should be able, long before the patient gets to the dropsical stage, to determine that the heart is sick and to place the patient upon the proper hygienic treatment, arranging rest, exercise and diet to prevent, as long as possible, his getting to the stage of dropsy and failing compensation.

This striving toward early diagnosis is the characteristic feature of modern medicine. How do you treat a cancer? By early diagnosis and excision. How do you best treat consumption? By simply prescribing a medicine, or by early diagnosis and arranging the hygienic conditions, giving the patient the open air, abundant food, excess of fat food and the rest that he requires. How do you treat diabetes and Bright's disease to-day? By the earliest possible recognition and correction of diet, hygiene, exercise, rest and baths, so as to prevent the patient getting into the severe stage of the disease. It is true of all these chronic diseases, that, recognized early, many cases are curable; if allowed to go on to an advanced stage they are absolutely incurable. The attitude of modern medicine toward these otherwise fatal chronic diseases is early recognition, recognizing them early enough to do the patient some good, and

this principle obtains also in the diagnosis of the diseases of the heart. Many of them if recognized early and if the patient is put upon proper hygienic treatment can be practically cured or life can be very much prolonged; whereas, if the recognition is delayed until late in the disease, they are absolutely incurable.

This brings us to the question of the usefulness of diagnosis. It is a curious fact that all enthusiastic therapeutists or rather advocates of separate therapeutic systems have tended to disregard diagnosis. It is so with the homœopaths, it is so with the followers of Rademacher, it is so with the faith curists, it is so with the osteopaths. Many of the leaders of our school have turned their faces against diagnosis as a useless thing, asking of what use is the diagnosis to the patient; saying that the main thing is the selection of the curative remedy and that diagnosis does not help them at all in the selection of this remedy. It is granted that diagnosis does not help in the selection of homœopathic remedy; but what it does do, is *to indicate the hygienic treatment* and in the treatment of these chronic disorders, the hygienic treatment is often vastly superior to the administration of medicine alone. It is so with consumption, diabetes, Bright's disease and heart disease. Ask the specialist. The specialist is a man who makes his living by curing a definite type of disease and it is from the specialist that you will get the truest valuation of treatment. The reason why the specialist will give you a truer valuation of treatment than the general practitioner is this: If the general practitioner sees one or two cases a year of a given disease, it makes little difference to him whether he cures them or not. He has plenty of other patients, but the specialist has got to cure that type of disease or get out of business. So, in seeking evidence for the success or failure of therapeutic methods, I prefer the opinion of a specialist, and I will leave the question to any specialist here whether in his work with chronic diseases he does not value hygienic treatment, diet, rest, exercise and baths more highly than the administration of medicine alone. Given good hygienic treatment, the remedy is of great value, but without hygienic treatment in many of these chronic conditions the remedy is of little avail. This then, is the value of diagnosis, not purely to satisfy scientific curiosity; not to show our great talent in the manipulation of new instruments; but solely for the benefit of the patient to recognize disease at a time when that disease may be curable or when preventive treatment will greatly prolong life.

I have sketched to you the growth of the diagnosis of diseases of the heart, beginning with the ancients who knew nothing about it to the present time when we have auscultation of cardiac sounds, percussion of cardiac areas and examination of the function of cardiac muscle. Some day we shall attain an ideal cardiac diagnosis. In that time we will be able to recognize a given cardiac affection, discriminate it from every other cardiac affection, and above all, determine its cause; for the determination of the cause of disease is as much a part of diagnosis as the recognition of the type of disease present. At the present day we are far from this ideal position. I do not come to you as a great authority on diagnosis of disease of the heart. No one of us is of sufficiently great authority that his diagnosis may not be reversed by the autopsy. I do not come here to tell you all about the diagnosis of diseases of the heart. My attitude is rather that of a student. We are all students together, finding out a few facts on which to base further researches. It is in this spirit that I would like you to approach the subject to-night; not that I will tell you all about it but that I will tell you a few things which have helped me in the study of heart disease and we will apply them to these patients together in a spirit of modest inquiry, finding out what we can of the subject of diagnosis of diseases of the heart.

In pursuing this study there are four points that it is well to keep in view. First, the position and character of the apex beat; secondly, the size of the cardiac areas; third, the valvular sounds, and fourth, subjective symptoms.

1. The location and character of the apex beat is the first thing to be determined in the examination of any heart. If the apex beat is not very strong, it may simply be that the chest wall is thick or that the beat is behind a rib. Have the patient lean forward, tilting the heart forward so that the apex beat becomes more perceptible. The apex may be displaced to the left by enlargement of the heart, which is usually a combination of hypertrophy and dilatation. With a few exceptions the location of the apex beat is a very good index as to the size of the heart. The exceptions are these: Accumulation of fluid in the left pleural cavity will push the apex to the right, retraction of the left pleura from chronic pleurisy draws the apex over to the left. On the other hand, accumulation of fluid in the right pleural cavity will displace the apex to the left or retraction of the right pleural cavity will draw it to the right. Accumulation

in the abdomen of fluid or gas or tumors will often raise the apex. On the other hand, aortic aneurism may depress the apex one or two intercostal spaces. If you can eliminate these conditions, location of the apex of the heart is an absolute indication as to its size. The force of the apex beat is less significant, because of the chance of the beat being hidden behind a rib.

An important diagnostic point that is often overlooked is retraction of the apex beat during ventricular systole. If this retraction is confined to the apex beat, it is a positive indication of adhesion between the heart and the pericardium, the result of former pericarditis. In thin patients you often notice a retraction of the third, fourth and fifth spaces during systole. This is simply the effect of atmospheric pressure pushing the intercostal spaces in as the heart flattens during ventricular contraction and is not to be confused with the retraction of the area of the apex beat which indicates adherent pericardium.

2. The second element in cardiac diagnosis is the outlining of the cardiac areas. You are familiar with the superficial area of cardiac dullness. I will simply say, use light percussion, so light that you have to put your ear close to the patient in order to hear it. In the books you will read that percussion dullness is a dull sound. This gives a wrong impression. *Dullness is the absence of sound.* The proper percussion note is that which, over the liver or any other solid organ, actually gives no sound whatever. If you get a sound on percussing the liver, you are not only setting the liver in vibration but also the air in the stomach and colon that lie behind the liver. As a practical rule in percussion, if you doubt the accuracy of your percussion note, percuss over the liver; use only such force as is necessary to give absence of sound, and transfer that same force to the heart or whatever organ you are percussing.

While the area of superficial cardiac dullness gives some idea of the size of the heart, it is not nearly so important as the deep area of dullness which corresponds to the true size of the heart. This is obtained by deep percussion; in fact, it is about the only place where I think deep or heavy percussion warranted, because you must reach the heart through a varying thickness of lungs.

Here let me endorse a method that is rejected by most men in the diagnosis of diseases of the heart. That is auscultatory percussion by the Bowles stethoscope; better by the phonendo-

scope. The use of the phonendoscope or the stethoscope in auscultatory percussion to outline the heart is rejected by most of the great clinicians of Germany, rejected by the men at Nauheim who see so many cases of heart disease, rejected by Broadbent and others of England and rejected in this country. This I do not understand; for, personally, during the past ten years I have found it a most useful method in determining the true size of the heart. I took this question up about ten years ago with Dr. Gregg Custis Birdsall, now of Washington, when he was a student with me and we tested it thoroughly at autopsy. The way to test your percussion accuracy is not on the patient during life, for you have no way of determining whether you are right or not. The only place to test a percussion method is on the dead body where you can cut out a window over the organ that you have marked and determine whether or not you have accurately marked the size and position of the organ. This we did and determined to our own satisfaction that auscultatory percussion is the most accurate way of outlining the size of the heart. This is of great importance in diagnosis; for the true size of the heart thus obtained is of great value in recognizing degenerative conditions of the heart wall which often escape auscultation because there are no valvular murmurs.

The method is this: Place the stethoscope over the fourth intercostal space to the left of the sternum where you are sure you are over the heart. Then scratch with the finger along different radii approaching the supposed border of the heart. When you come to the border of the heart there will be an abrupt change of sound; the sound will become louder. Do this in all directions from the stethoscope, marking the point where the sound changes and you have an outline of the organ over which the stethoscope rests. This method is very accurate with two precautions and they are important. It has been shown that you can place this stethoscope upon the abdomen and mark out a beautiful heart and can put it around on the back and mark out another. That is, in scratching round the stethoscope there is always an area around the stethoscope where the sound is louder than at other points and you may mistake this for the size of the heart. The correction is this: Take your observation from at least two and, better, three points at varying distances from the border of the heart. If the sound moves with the stethoscope it is evident that you are

simply getting the area of sound around the stethoscope. If, however, from the three points of observation, the line remains in the same position, you know that it is the border of the organ and not simply the sound around the stethoscope.

The second important correction in the use of this method is this: When most patients lie on the table for examination, they put their arms over their head, putting the pectoral and other muscles on the stretch, like tight fiddle-strings. If you use auscultatory percussion over such a muscle you will get the sound of the stretched muscle. It is like trying to palpate or percuss through a tight drumhead. You will get very little except the sound of the stretched drumhead. If you wish accurate percussion you would relax the drumhead and through a loose drumhead you could determine the sound of a cabbage or any other solid body beneath it. So make sure that the patient's arms are down, that the muscles and skin are not tense over the organ that you are attempting to examine. This will largely eliminate the sound of the muscles and skin and give you the true sound of the organ that lies beneath. If one will take pains to observe these two corrections, I can recommend auscultatory percussion as a most valuable method of outlining organs, both in the cavity of the chest and the abdomen.

3. We consider next the sounds of the heart. The normal sound and the sounds of the various valvular lesions are well known to you. This is neither the time nor the place to describe them individually. I will simply say that the longest-lived lesion that we have is mitral regurgitation. I would rather have mitral regurgitation than any other form of cardiac disease. Patients with mitral regurgitation have often served in the army and worked as laborers and lived long lives with comparative comfort; also this, that in early mitral regurgitation, you may not get the characteristic murmur loudest at the apex and transmitted to the left. You may hear it more loudly in the second, third or fourth intercostal spaces to the left of the sternum and confuse it with a pulmonary murmur.

In the interpretation of any cardiac murmur, the point to be determined is this, Is it the murmur of organic valvular disease or is it the so-called functional murmur? Never diagnose an organic valvular disease in a patient who has fever, anaemia or who is markedly debilitated. It may be a purely functional condition that will disappear with the improvement of the general condition. In such a case there is absolutely no way of de-

termining whether the murmur be organic or functional, unless you have marked dilatation of the section of the heart which is put under strain. Functional murmurs are not associated with dilatation of any sections of the heart. Again functional murmurs are always systolic. Never call a diastolic murmur a simple functional murmur. Diastolic murmurs are practically always organic. Next, in the judgment of a murmur remember that the pulmonary valve is rarely organically diseased but that it is the common point of intensity of functional or anæmic murmurs. Systolic murmurs that are loudest at the pulmonary valves are nearly always functional. Another point in the diagnosis of cardiac murmurs is the position of the patient. Gravity greatly assists the velocity of blood flow from one compartment of the heart to another. Murmurs that are developed by blood streams going towards the head are often greatly intensified by the patient lying down where the blood flows freely upward. These are mitral regurgitation and aortic stenosis. On the other hand, murmurs that are developed by the blood flowing downwards towards the feet as aortic regurgitation and mitral stenosis are intensified by having the patient in an erect position, either sitting or standing. This is true to such an extent that in some cases you may find a marked murmur in one position which will absolutely disappear in the other position.

4. Next, we consider subjective sensation. As a general rule it is true that the patient who complains most of subjective sensation around the heart is the least apt to have any disease. Two exceptions to this rule are aortic aneurism and angina pectoris. The lesson that we must draw is not to neglect the examination of any heart. As Senator says in connection with diseases of the kidneys, "No man will run much risk of overlooking kidney disease who examines the urine of every patient who comes into the office." So with patients with heart disease, you will overlook very few of them if you make it a habit of examining the chest of every patient who comes into your office, whether he comes in with a cold in the head or the typhoid fever.

The study of subjective symptoms brings us to aneurism of the arch of the aorta. The symptom that we associate most with aneurism is pain; but remember that aneurisms of the arch of the aorta have been conveniently divided into the aneurism of physical signs which give very few subjective symptoms and

the aneurism of subjective symptoms which gives very few physical signs. The aneurism of physical signs involves especially the ascending part of the arch where the enlargement is forward and there are no important structures to be pressed upon. Such a patient may come into your office with pulsating tumor in the second right intercostal space and with scarcely any subjective symptoms. On the other hand, aneurism of the transverse portion of the arch cannot grow very much before it begins to press upon important structures, press upon the left bronchus and produce dyspnoea; press on the left recurrent laryngeal nerve and produce cough or aphonia from paralysis of the left vocal cord; press upon the vertebra, producing caries and intense pain. An important diagnostic point in this type of aneurism is Williamson's tracheal tugging. Have the patient sit in a chair with his head bent backwards. Hook your finger under the cricoid cartilage and draw strongly but gently upward. Any dilatation of the transverse portion of the arch of the aorta will give a distinct throb, drawing the cricoid downwards synchronously with the heart beat. This is due to the fact that the left bronchus hooks under the arch of the aorta and any enlargement here draws directly downward upon that left bronchus, the sensation of pulling being transmitted to the trachea and cricoid. Variation of the pulse at the two wrists is only important in case the aneurism happens to affect either the innominate or the left subclavian artery. In many cases of aneurism of the arch of the aorta, the pulse in the two radial arteries is of equal volume and synchronous. Perhaps one of the most important signs of aortic aneurism is diastolic shock and a diastolic sound, resembling the closure of the aortic valves. The classic signs of aneurism are the systolic bruit and systolic thrill, but I would remind you that solid tumors lying over the large vessels at the base of the heart and neck may give pulsation and may give systolic bruit. Many cases of fibroid phthisis give a systolic bruit in the neck, probably owing to the retracted pleura compressing some of the vessels of the neck either arteries or veins. But a distinct diastolic shock and loud diastolic sound over a pulsating swelling is characteristic of aneurism only.

A TEST FOR DETERMINING THE FUNCTIONAL CAPACITY OF THE HEART.

BY

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WHEN a patient past the middle period of life enters your office, gives a history of acute inflammatory rheumatism, complains of dyspnoea, oppression, cyanosis, oedema and other signs of inadequacy, your attention is at once directed to his heart and a correct diagnosis is speedily made.

When, however, all of these signs and many of the symptoms are absent and there is no murmur to confirm your suspicions, then it is that a determination of the functional capacity of the heart becomes most difficult and special tests must be used to bring out the existence of myocardial disease. Let me impress upon you the importance of these tests for, strange as it may seem, the literature upon heart lesions is abundant while one may search the books and not find adequate information concerning the functional capacity of the heart.

While the diagnosis of cardiac insufficiency is comparatively easy in the cases showing dyspnoea on slight exertion, precordial oppression, palpitation, pain, vertigo, oedema or a murmur, yet many cases of decreased functional capacity and even advanced cardiac disease have been overlooked because of the absence of a murmur or the mild degree of the other symptoms.

The prevalence of the many acute diseases and toxemias which invariably attack the myocardium, and from the fact as shown by Seitz that cardiac disease may be induced by over-exertion, necessarily makes decreased functional capacity an extremely common condition.

Now how may we test for functional capacity and what points are to be observed while making these tests?

First.—The body must be made to perform definite amounts of work during definite periods of time.

Second.—The blood pressure, pulse, respiration and temperature are to be taken before and at frequent intervals after the tests.

Third.—Percussion and auscultation of the heart before and after tests.

Fourth.—Observation of the manner in which the patient reacts to exertion.

Since 1751, when Passavant first estimated the work done by the left ventricle, many have been the forms of apparatus used to determine cardiac functional capacity.

An artificial steppage apparatus upon which the patient walked, the work thus done being measured.

The thigh muscles have been made to lift weights attached to the foot to the time of a metronome.

Some workers have preferred to use an apparatus built on the principle of the bicycle and applying friction to the wheels, the work thus done being measured; while others have had the patient turn a wheel supplied with a brake by which the amount of work could be measured.

To obtain accurate findings it may readily be seen that any one of these methods is at fault, because of the inability of the examiner to calculate the exact amount of work done; for this reason I wish to suggest to you a test which has given me much satisfaction.

The apparatus required is the ordinary nebulizer compressed air tank fitted with a pressure gauge and hand pump. The tank is emptied, the gauge reading is zero. The patient is instructed to pump air into the tank, at a speed indicated by the examiner, until the gauge registers a certain pressure. Now, if forty strokes of the pump handle have raised the pressure in the tank to forty pounds and five minutes have been consumed in doing the work, the entire amount of work done may easily be calculated and no matter how many times the experiment is repeated, forty strokes to forty pounds in five minutes will always equal the same amount of work done, as will any set of figures which the examiner may select.

With this method very valuable and accurate results may be obtained and the individual worker may set a standard of the amount of work done and the reaction to that work in a normally functioning heart, by tabulating his observations according to the scheme suggested and thus have a table of comparison for hearts not up to the standard.

Another more simple test is that employed by insurance companies and examining boards of various institutions. The patient is required to run or to hop on one foot several times the length of the room in which he is being examined, or possibly to climb a flight of steps.

The observations are made as before stated, the experiments differing only in the kind and estimation of the work done.

The conclusions drawn from such experiments are as follows:

First.—When there is good functional capacity the blood pressure undergoes little if any change.

Second.—Upon cessation from strenuous work, blood pressure is slightly raised and soon falls to normal.

Third.—While work is going on, more severe effort may cause fall, which promptly rises to normal after cessation from work.

Fourth.—More work may cause a lower fall, followed by a rise to higher than normal. The absence of the secondary rise suggests myocardial fatigue and is usually accompanied by clinical signs of insufficiency.

Fifth.—A small amount of work in a weakened heart will produce as much acceleration of the pulse as a large amount of activity in a healthy organ.

Sixth.—The respiratory rate is increased but maintains its normal ratio.

What practical uses may we make of these tests?

First.—As a means to a diagnosis of cardiac degeneration.

Second.—As a means to a prognosis in a given case.

Third.—As an indication for treatment especially as to rest and exercise.

Fourth.—As an indication of the progress of a case while under treatment.

With a compilation of the data thus obtained many cases which have heretofore escaped our attention will come to light and the physician will be enabled to prescribe the ounce of prevention which will at least retard the development of serious cardiac disease.

THE LESIONS OF ECLAMPSIA.

BY

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(Read before the Homœopathic Medical Society of the County of Philadelphia,
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IN reading German literature dealing with eclampsia the notable fact attracts attention that these authors speak with much certainty about the pathological anatomy of this disease. They seem to be almost universally agreed as to these pathological lesions and speak of them as concerning familiar facts. They are apparently so sure of the correctness of these accepted views that, incited by the hope of solving the mystery surrounding the pathogenesis of the disease, they have conducted the most wonderful researches, which though not yet accomplishing the desired purpose, have produced results that will doubtless rank among the landmarks of medicine.

Such clear cut and satisfactory descriptions of the pathological anatomy of eclampsia cannot readily be found in our language, and the impression is obtained that either our authors do not believe that eclampsia has a definite pathological anatomy, or have not been sufficiently insistent upon this point. A few American investigators, whose work there will not be time to review at present, have concerned themselves with this general subject, classifying eclampsia with pernicious vomiting of pregnancy and acute yellow atrophy of the liver as the toxæmias of pregnancy, but in reading their results the impression arises that they have not taken the broader view of eclampsia, and as far as I happen to know have not, for example, correlated the liver conditions of eclampsia with its general pathology as accepted abroad.

Continental writers believe that eclampsia possesses a distinctive morbid anatomy, and this belief is based upon numerous anatomical and histological studies whose results have repeatedly confirmed each other. They were made by Schmorl, Lubarsch, Klebs, Ribbert, Ernst, Pilliett, Prutz, Jurgens, Leyden, Meyer-Wirz, Dienst, Konstantinowitsch and others. According to the results of these writers, the pathognomonic lesions of eclampsia are as shall be described.

One clearly pre-eminent fact about the lesions of eclampsia

seems to be that they are not casual, but they represent a definite pathological entity. Making allowance for individual variations such as attend all conditions found post mortem, these changes occur with great regularity. They are, moreover, not confined to one organ, but affect chiefly the kidneys, the liver, the pancreas, the spleen, the intestinal tract, the heart, the lungs, and the brain. We should not forget that lesions may be found in the brain quite similar to those in the liver, and likewise in the fetal organs. The realization of such a fact modifies the entire conception of the essential nature of eclampsia and has led to the unavoidable conclusion, not as a casual opinion, but as a logical deduction, that eclampsia represents a toxæmia.

Another general fact about the lesions of eclampsia is that they are not inflammatory in origin; neither are they attended by the ordinary evidences of inflammatory reaction. In nature they are degenerative, necrotic. If inflammatory reactions appear they are secondary usually to the thromboses. They may be comprehensively described as Schmorl has done when he said: "Eclampsia is characterized by a complex of organic lesions composed of changes in the kidneys, of anæmic and hemorrhagic liver necroses, of hemorrhage and softenings in the brain, as also in the heart, and of the formation of multiple thromboses." (Seitz, *Archiv f. Gyn.* 87,—78). Hofbauer (*Zeitschr. f. G. u. G.* 61,—227) also has given a general description. He says there are degenerations in the liver, kidneys, heart, especially anæmic and hemorrhagic necroses, as also hemorrhages in the various parenchymatous organs (brain and in the organs just named) and thromboses.

The kidneys. If we direct our attention with more regard to detail to the several organs just mentioned, the changes just described in general terms will be found in each one of them, modified of course in some measure according to the histological structure of the organ. Looking first at the kidney, which has longest been known as being affected by eclampsia, Schmorl (*A. f. G.* 65, 504) says that changes are found in the kidneys. These are not inflammatory conditions but are in the nature of degenerations in the secreting parenchyma, especially in the convoluted tubules, in which there are albuminous opacities and fatty degeneration; also local necroses. He is not able to confirm the belief that the glomeruli are especially affected as a glomeruli-nephritis, although they often contain hyaline and fibrinous thrombi. These kidney changes are found with great

regularity, but there is no doubt that occasionally they may be absent. Prutz found the kidney normal seven times in 358 cases, and Schmorl once in 73 cases, but the usual changes were found in other organs.

Meyer Wirz in recounting the observations made in 35 cases in Weyder's clinic, quotes Lubarsch by saying that the latter divides the kidney changes into three classes:

1. Pale kidneys, grey or pale yellow; microscopically fatty degeneration of the convoluted tubules or coagulation necrosis, occasionally fat embolism in the glomeruli and also fatty degeneration of the epithelium of the glomeruli; in the vessels hyaline and blood plaque thromboses; nowhere inflammation.

2. Even with the naked eye there are distinct hemorrhages. In such cases there is constantly coagulation necrosis of the epithelium; no evidences of inflammation. The vessel obstruction is plainer and more diffused than in the former class.

3. Infarct formation combined with hemorrhage; occasionally the kidneys are covered with anæmic infarcts and hemorrhages, when naturally there are also areas of inflammation in the neighborhood of the small infarcts and hemorrhages; if the kidney is entirely taken up by small necroses and hemorrhages, the inflammatory areas are more diffuse and thus arises the picture of acute hemorrhagic nephritis.

Most of the cases belong to the first class. Degenerative processes in all stages are found. The surface of the kidney is mostly pale, often yellow. In other cases there is the picture of the obstruction kidney. On section the cortex is in most cases degenerated; or it is dull, pale, mottled. Occasionally the dullness is quite marked, the markings of the organ have disappeared, the whole kidney appearing whitish or yellow. The parenchyma is dark reddish brown, occasionally pale yellow. In the apex of the pyramids there are yellowish white, striped deposits which in the cortex appear as yellow or reddish stripes. The consistency of the kidney is often uniformly hard, or quite soft and the cortex swollen.

In the second category, according to Lubarsch there were four kidneys which showed hemorrhage superficially and into the substance. There were also infarcts. These consist in superficial, diffused, dark red spots, as large as a bean, often surrounded by grayish white portions. On section there are wedge-shaped continuations to the columns of Bertini and between opaque grey yellowish places. Only some of the kidneys

were examined microscopically. These descriptions are in accord with those of other authors. Almost without exception the changes were degenerative and not inflammatory. Where the latter exist they appeared to be secondary. Dullness and fatty degeneration of the convoluted and also of the straight, renal canals. The epithelium is often swollen, desquamated, often without nucleus, or the latter does not stain well. Necrosis and pigmentation of the cylindrical epithelium. In one case the surface of the glomeruli is spotted with fine fat drops. These in some places are undoubtedly in the epithelium and such were also demonstrated in the epithelium of the capsule. Whether there are also found fat embolisms in the capillaries of the glomeruli could not be recognized. The presence of fat in the epithelium of the glomeruli has been described by von Leyden and Hiller. Fat emboli have been repeatedly observed but these fat emboli are not characteristic of the pathological anatomy of eclampsia. In one case the vessels of the glomeruli and also the inter tubular were obstructed by thrombi, whose structure was partly homogeneous, and partly fibrillar.

The thrombi of the glomerular capillaries are of various size. Some are extensively filled with thrombotic masses; others show thrombi in single capillaries, others again only short pieces of thrombotic material. In the infarct formation arteries are found occluded by thrombi. The lumen of single urinary canals is found filled with granular and hyaline exudates. The interstitial tissue is mostly intact. In one case there is mentioned small celled infiltration.

In the post mortem findings also there is the notable fact that the grade of kidney changes is in contrast with the seriousness of the general disease, especially of the liver affection.

Lubarsch divides the liver changes into three classes:

(1) Cases in which macroscopically, aside from stagnation and mild fatty degeneration there were no marked changes. Microscopically, there were always changes in the contents of the blood vessels. Mostly also small necrosis, also pronounced stagnation.

(2) Macroscopically there are well marked changes; on the liver surface there appeared red vein-like branchlines, which do not accompany the course of the vessels, and between them small bluish yellow stripes; on section the same picture.

Microscopically, besides the changes mentioned in class 1.

there are hemorrhages and necrosis in varying number and position.

(3) Genuine hemorrhagic and anæmic infarcts; wedge-shaped and leaf-like, yellowish and white hard and dry spots with red surroundings. In these cases there are obstructions of vessels in all portions of the hepatic vascular system; the anatomical and especially the mixed infarcts sometimes have a distinct zone of infiltration. According to this classification some of the cases exhibit the picture of the liver of stagnation and mild parenchymatous dullness. The tissue marking is indistinct and dull. Then we frequently find pictures of mild or advanced or high graded fatty degeneration, parenchyma opaque yellow, the markings washed out as though boiled. The tissue was easily torn. Many of the cases belong to the second class. There were often found punctate or diffuse hemorrhages under the capsule of Glisson; occasionally the parenchyma is saturated with blood.

Finally in eight cases was found larger infarct formation. These appear upon the surface of the liver as dark red spots with yellow centers. On section there are wedge-shaped portions which enclose opaque portions. Other necrotic parts form scattered masses the size of a pin's head to a bean with greyish red centers and hemorrhagic periphera which project somewhat above the surrounding tissue. Changes in the liver which would point to old or previous disease of the liver were not found. Microscopically was found fatty metamorphosis of the liver cells, smaller and larger hemorrhagic extravastes, dilatation of capillaries, more or less diffuse, hyaline or blood-plate thromboses, in the hepatic veins and portal vessels.

The liver cell thromboses were repeatedly found. The livers affected by infarcts showed masses of hemorrhagic necrosis, which are situated in the periportal tissue and in the periphery of the acini, sometimes advancing into neighboring groups of acini. The liver cells in the neighborhood of the hemorrhages are in part without nuclei, between the cells a fine fibrillar network of fibrin in whose meshes some liver cell columns and liver cells, and numerous shrunken red blood corpuscles.

The masses are remarkably well defined against the other tissue. In the interlobular veins belonging to the masses there are found the same homogeneous partly fine-fibred thrombi.

Schmorl's description is much the same. He says the pathological changes in the liver may be divided into two classes of

necrosis; the one hemorrhagic, the other anæmic, both being stages of the same process. These changes are visible to the unaided eye. The hemorrhagic form is the most common. Numerous red streaks and spots are seen upon the intact as well as the cut surface, and the liver surface is brown red in color. When the anæmic form of necrosis predominates, small whitish spots are visible, mostly on the free border of the liver, or where the ligaments are attached. On the cut surface there are red streaks and spots like those described in the hemorrhagic form. Microscopically both present characteristic appearances. In the hemorrhagic necroses, the hemorrhage occurs in the connective tissue about the portal vessels bordering close on the acini. Both Schmorl and Klebs consider this condition to be brought about by a gradual slowing of the circulation in these areas. The anæmic necroses resemble the anæmic infarcts of the spleen and kidney. In fresh specimens, the liver tissue adjacent to the necrosis was intact, but the liver cells were swollen, the protoplasm stained poorly with eosin, the nuclei were entirely lost or granular and shrunken; another condition was a diffuse thrombosis in the portal vessels, usually affecting the smaller veins and capillaries. Schmorl considers the thrombosis as primary and the necrosis as secondary. (Allen, A. J. O. 51,—166.)

Konstantinowitsch working in Marchand's Institute, has recently given the finer changes in the liver as follows: "As the earliest changes in the eclamptic liver there appear the changes of the liver cells and of the endothelium of the capillaries in the peripheral portions of the lobule. This change advances with the progressive development of the disease processes, and the liver cells acquire a netlike vacuolated appearance. The smaller and larger interlobular vessels become thrombosed by and by. As a constant appearance in eclampsia there are observed dilatation and congestion of the capillaries (frequently also in the peripheral portions of the lobules) and depending upon the basis of impeded blood circulation, which is caused by primary thrombosis of the capillaries in the peripheral position of the lobule, the liver cells become affected by a necrosis in the regions of fibrin exudation and the hemorrhages." Hofbauer says, and apparently touches the keynote of this whole consideration, that the pathology of eclampsia in reference to the liver changes occurring, may be defined as an acutely developing, partially intravital liver autolysis. Where no necroses were demonstrable, the liver cells in the periphery of the acini

appear swollen with rounded angles and the protoplasm vacuolated. Hofbauer also says it must be emphasized that the changes in the liver cells do not stand isolated in the disease complex, but are associated with alterations in other organs which are produced by analogous poisons or arise in consequence of the liver changes.

Not only is this general type of lesions found in the organs thus far named but they are found in other organs. Thus pathological changes are remarkably frequent in the heart. Epicardial and endocardial hemorrhages are mentioned. In consistency the heart muscle is relaxed and soft. On section the appearance varies, being brown red, or greyish brown or pale yellow or showing yellow streaks and spots. Microscopically Schmorl describes albuminous cloudiness, fatty degeneration and necrosis of the muscle, and also thrombi in the heart vessels. Dienst (*A. f. G.* 65, 367) found loss of muscle striations, cloudy swelling, pronounced fatty degeneration; the vessels over-filled with blood; blood stases and thromboses.

In the lungs thromboses in the capillaries are found, combined with fibrinous exudates in the tissues. Schmorl found thrombi in the pulmonary vascular system in 66 cases out of 73 examined. Meyer-Wirz found hemorrhagic infarcts, and softened thrombi in branches of the pulmonary artery, also subpleural and bronchial hemorrhages. Dienst describes similar changes.

In the brain multiple hemorrhages and softenings, mostly small but sometimes extensive are found. In 58 cases out of 65 examined, Schmorl found these hemorrhages and localized areas of softening mostly depending upon thrombi in small vessels. Meyer-Wirz found pathological lesions in 21 cases. Oedema of the pia and of the brain substance 12 times, five times dropsy of the ventricles, eight times hemorrhages of the pia or dura. In the brain substance there were a series of apoplexies and hemorrhagic softenings. These had their seat four times in the cortex, once each in the optic thalamus and peduncle of the cerebrum, in the lenticular nucleus, pons and cerebellum. Once thrombosis of the middle meningeal artery.

It would simply be multiplying words to describe in detail the lesions in other organs, for they practically amount to the same as those already repeatedly mentioned. Thus the hemorrhage into the stomach now and then observed in some cases, is referable to the general type of lesions characteristic of eclampsia.

It is most important definitely to determine the anatomical changes underlying the disease processes in eclampsia and to study them as affecting the body throughout. Heretofore attention seems to have been directed too exclusively to certain organs, and this is one reason why so many fruitless theories have been advanced to explain its pathogenesis. Investigations respecting the essential cause of eclampsia will be materially aided by clearly recognizing the effects of the poison and will be much simplified when it becomes possible to determine with some degree of accuracy just where the poison originates. Just at present the consensus of opinion seems to be directed to the placenta as furnishing the poison, and some recent articles by Dienst and by Hofbauer verily seem to be on the point of clearing up this most difficult subject.

INFANTILE SCORBUTUS.

BY

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(Read before the Connecticut Homœopathic Medical Society.)

THE problem of the cause of infantile scurvy, Fischer declares to be as attractive as a puzzle. Some day, he says, it will be made clear and then the wonder will be as with other puzzles why it was not more quickly solved. That the secret when discovered will be expressed in chemical terms is the statement of Dr. W. H. Dickinson, of the British Medical Association, for it is practically certain that the disease is due to specific deficiency in the food. We are in the curious position of being able to combat that deficiency and very readily to cure the disease without a sure knowledge of the chemical antidote employed. As Fischer puts it, we know the broad result which is enough for practice but we do not know the isolated want. We know that fresh milk, living milk, is anti-scorbutic—preparations of it, substitutes for it or (once more to borrow a phrase from Dr. Fischer) sophistications of it are not. The substitute foods are not in themselves harmful but if used for a length of time they are not sufficient—not adapted—and by the exclusion of fresh milk they too often spell scurvy.

The disease to be discussed has been called by many names. It was first described by Möller in 1859 and named by him acute rickets. Other German writers referred to it as acute febrile rickets, or the acute onset of rickets and more than one of them recognized a scorbutic element. In 1873 a Danish physician (Ingerslev) described a case of the same clinical character under the title infantile scurvy. English writers are heard from some years later, and in 1883 Dr. Thomas Barlow, after three autopsies, was able to give the clinical picture with its anatomical basis, giving, besides an account of the fatal cases, an analysis of thirty-one others. Dr. Barlow, however, gives credit to Dr. Cheadle, another Englishman who wrote from 1879-82 for very valuable papers which laid down the lines for the true interpretation of the disease.

Naturally, but unfortunately, the name of the writer is often given to conditions described and so we read of Möller's disease, of Barlow's disease and of the Möller-Barlow disease. Hæmorrhagic rachitic, hæmorrhagic periostitis, scurvy rickets are all terms open to objection though used by various authors. Barlow's own choice of name, infantile scurvy, serves the purpose fairly well for definiteness of description if one remembers always to prefix the adjective, for typical scurvy as seen in the adult, though rare, is not unknown among children.

Infantile scorbutus occurs usually before the end of the second year. We are indebted to the American Pædiatric Society for a report in 1898 of nearly four hundred cases. Four-fifths of these were children between six and fifteen months of age. The sexes are equally affected. There is usually no history of previous ill health—the babies are apt to be plump and apparently well nourished and the cases are found commonly in private practice. They are the well-to-do who can afford to bring up children on substitute foods. It seems probable, says Barlow, writing in 1899 that the disease has become more common during the last two decades and that this corresponds with the greatly extended use of proprietary infant foods. In ten years he added seventy cases to his early list of thirty.

Of the cases reported by the American Pædiatric Society, ten only were breast-fed, and it is claimed that in these the mother's milk was greatly deficient in either quantity or quality. The others had had mainly sterilized, pasteurized or condensed milk—the little victims of sterilized milk being more than five times as numerous as those brought up on the pasteurized va-

riety. Evidently the prolonged exposure to greater heat does something in the process of sterilization which the pasteurized milk partly escapes. This something appears to be the devitalizing of the proteids (as well as the destruction of the natural ferments and the alteration of the emulsion) and the farther the milk is thus removed from the natural product—the farther from the living thing, the more likely is its use for any prolonged time to be followed by the development of scurvy.

On an evening some months ago I was called upon by a gentleman who asked me to go and see his little daughter sixteen months old. Some evident embarrassment on his part was explained when he told me that only a diagnosis was wished—that the baby was under Christian Science treatment but was not deriving the benefit that was to be expected; a correct diagnosis it was thought would guide the healer. From an unintentional remark by the father I inferred that pain was an element in the case and I learned too that the child was a bottle baby, but even the question or two that I asked were objectionable. However I had my clue. At the home I found father, mother and Science healer awaiting me, but no baby. I took an unusual course. I said that I would describe a certain baby illness and that possibly I might arrive in that way at the symptoms presented by their child. My story was of a baby not apparently ill who all at once began to cry upon being bathed or diapered or handled in any way, who continued to cry and otherwise show evidence of pain if motion were imposed upon it; who finally ceased to use its legs; seemed to be in greater pain as time went on; had some black and blue spots here and there upon its body; some swelling near knees or ankles; perhaps swollen, bleeding gums.

There was no doubt that my hearers recognized most of the symptoms but I was not prepared for so sick a little child as I was then permitted to see.

She lay on her right side, knees well drawn up, head markedly retracted. There was no motion at all of the lower limbs but at times she feebly moved head or hands. Chiefly on the limbs (and I think there was one on the face) a number of purpuric spots were noted, none of them larger than the old silver five-cent piece. The skin was dry and dirty looking, almost rough, and the child colorless. The neighborhood of the ankles was swollen but swelling above the knees or in any part of the thighs was not marked. The child's face expressed both pain

and fear and there was a sharp wailing cry as soon as anyone approached her crib.

Rectal temperature was normal and she lay in such a position that posterior examination of the chest was easy. There were no adventitious sounds. The eight incisors were cut and the first molars, with the gums around the latter swollen and ulcerated. The child was in such pain that for days no attempt had been made to dress her. Of course she was totally unable to sit up.

I could get no acknowledgment of the length of time since she had been bathed. The urine was said to be dark and scalding and the bowels costive. Sleep was fitful, the child waking from each short nap with her sharp pitiful cry. This clinical history deviates not at all from the published description of infantile scorbutus, and it may be interesting to quote from Barlow's original monograph instead from more recent writings:

He says: "So long as it is left alone the child is tolerably quiet, the lower limbs are kept drawn up and still but when its diaper is changed or it is placed in the bath or otherwise moved there is continuous crying, and it soon becomes evident that the pain is connected with the lower limbs. At this period the arms may be handled with impunity but any attempt to move the thighs or legs gives rise to screams. Next some obscure swelling may be detected first on one lower limb and then on the other although it is not absolutely symmetrical (that is the lower third of one leg and the upper third of the other may be affected and so in the thighs). The swelling is ill-defined, but it is suggestive of thickening around the shafts of the bones, beginning above the epiphysical junctions. Gradually the bulk of the limb affected becomes visibly increased and the position assumed becomes somewhat different from what it was at the outset. Instead of being flexed the legs lie everted and immobile (absolutely limp) in a state of pseudo-paralysis. At this time if not before great weakness of the back becomes apparent. A little swelling of one or both scapulæ may appear and one or both arms show similar changes, though rarely as marked as in the legs. The joints are free (nor is there any heat or discoloration of the swellings).

"In severe cases crepitus may now be found in the region adjacent to the junction of the shafts with the epiphyses. Both extremities of the femur and the upper end of the tibia are the common sites of such fractures.

"A remarkable eye symptom may appear—proptosis of one eyeball with puffiness and staining of the upper lid. In a day or two the other eye presents the same appearance. (This from retrobulbar hemorrhage). With the symptoms a profound anæmia develops. Asthenia is well marked. The temperature is erratic; it is often raised for a day or two when successive limbs are involved. If teeth have appeared the gums may become spongy and bleed freely."

With all writers Barlow names the cardinal symptoms as progressive anæmia, extravasation of blood beneath the periostium with resultant thickening and tenderness of the shaft, pain in the legs and (if teeth have appeared) spongy and bleeding gums. The disease may be suspected in any child having pain on moving the legs or with pseudo-paralysis. In character the swelling of the limbs gives the impression of a deep-seated effusion, and with its increase in bulk each limb may be felt to be heavier than normal.

In fact this effusion of blood is *the* cardinal symptom—the anæmia, the tenderness, the increased bulk and weight being secondary to it. Upon autopsy the blood is found to be derived from the vessels on the inner surface of the periosteum. The escaped blood forms a layer of coagulum on and sometimes completely around the shaft while the periosteum is raised up like a sheath. There is no necrosis, no periostitis. The beginning zone of extravasation is (in the long bones) near the junction of shaft and epiphysis and this is the site of fracture also should it occur. Besides affecting the limbs the hemorrhages have been found at the crest of the ilium, on the scapulæ, at the anterior extremity of the ribs near the junction with the costal cartilages and even on the cranial and facial bones.

Other symptoms that seem noteworthy are the debility that may precede the more characteristic signs—also the rough, dry, colorless and yet dirty-looking skin. The patient sleeps badly, is fretful, cries a great deal, loses appetite. With every new manifestation of the disease the anæmia deepens but there may be a downward tendency so slow as to include periods of apparent improvement, and the condition may go on for weeks without seeming to make much impression upon the child's former good condition.

If not recognized, however, and the remedy applied the profound anæmia, the progressive wasting can only lead to a fatal termination.

The cutaneous hemorrhages and hemorrhages from the mucous membrane, vary much in different cases. Ecchymoses are seen in about half the cases. Exophthalmus due to orbital hemorrhage I have already mentioned; and there may be bleeding from the gums, nose, bowels, kidney, stomach. In my little patient the dark urine which caused staining was probably a hematuria. It occurs in about five per cent. of the cases.

With the essential features kept in mind the diagnosis is easy. The usual error is in thinking a case one of rheumatism which is rare under one year of age, presents high temperature and joint, not shaft, involvement. Poliomyelitis has extreme paralysis but none of the exquisite tenderness of scorbutus. No other anæmic hemorrhagic disease is immediately arrested (as regards new manifestations) as is this disease by the administration of a corrected diet.

Probably no other class of patients that can reach so serious a condition can so quickly regain good health.

The American Pædiatric Society gives the average duration of treatment as being a little over three weeks. Forty per cent. of their list of cases showed marked improvement within three days; eighty per cent. within a week, while nearly one-third of their cases were well within one week. Kerley mentions early cases as being relieved in seventy-two hours, and a very long case that took three months.

No treatment can be more simple. Dr. W. Gilman Thompson, in his "Practical Dietetics," gives as his preliminary direction in the cure, "First throw away all proprietary foods," sterilized milk, etc. The diet then becomes one of fresh cow's milk, modified if necessary to suit the age and digestive capacity of the child, and this treatment is sufficient. More rapid improvement is established (and the rapidity of the cure is to be considered in the face of such suffering) if fruit juices are also used. Orange juice is the favorite—Kerley calls it a specific—in from one-half ounce to three or four-ounce daily portions. It may be given twice a day and of course on an empty stomach, say an hour before a milk feeding. Peach juice is good and I like the juice of stewed prunes, or a prune jelly. Expressed beef juice is a valuable aid too, and mutton and beef broths. For the older children vegetables are in order—potato soup and cream of celery soup are particularly good—so is potato that has been baked and then mashed. The nutrient value of olive oil must not be forgotten for the cases showing

anæmia and malnutrition and constipation. The babies do not rebel at it and the older children find it acceptable if the required quantity is poured over a little piece of toast.

Great care should be exercised in handling the children both to avoid the exquisite pain and because of the ease with which fractures occur; and as they begin to recover there should be no attempt to coax these little folks to sit up or stand until they do it on their own initiative. The small girl who furnished the text of this paper had always been a bottle baby. Up to ten months she had been fed upon the preparation known as Cereal Milk. From the size of the child when I saw her I cannot think that she had ever been very robust and the parents admitted a sickness during the previous winter of what nature I could not determine. She had been at her best, however, when during the Cereal Milk period she had had also chicken bones to suck, pieces of bacon of which she was extravagantly fond and scraped apple—the apple, bacon and chicken bones being the prescription of her grandmother. At that time the baby was said to be almost ready to walk. Then there came to the father the teaching that sterilized milk is the very acme of what is best in infant foods—and he wanted his baby to have the best.

There was some opposition to my plan of treatment and I made a second and third visit on successive days. By that time I had established a diet of four milk feedings per day (at first diluted with barley gruel though the child was old enough for whole milk) and one feeding of mutton broth. Once a day she had orange juice and once also a half ounce or so of beef juice. Crusts and zwiebach were to be offered and substitution of prune juice for the orange to be made occasionally.

For the sore and offensive mouth a wash of a dram of bicarbonate of soda to a teacup of water. Calc. phos. was the remedy given.

The hardest direction to be enforced and the last to be obeyed was the one in regard to bathing the child.

I directed that a large bath towel be swung across the tub to make a hammock and the baby placed gently upon it and that then the warm water be brought up around her to do its cleansing and soothing work. In regard to the use of water one remembers that in Barlow's early cases the painful limbs were wrapped in wet compresses.

My fourth visit was made on the sixth day. Baby was dressed and lying in her carriage. I made my fifth and last call

on the seventeenth day. She was on the lap of her nurse and played with me during most of my visit—to the ordinary eye a normal though small, baby. At this time I gave directions for the dietetic advance to be made during the summer, and I was assured later of the good health of my patient.

HOMŒOPATHIC PRESCRIBING.

BY

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THE art of prescribing presupposes a knowledge of the materials prescribed, in other words, of the *materia medica*. The successful prescriber must know the possibilities of each of the weapons in his armamentarium. He must get to know his drugs like he does his friends, by their general as well as by their peculiar characteristics. These characteristics can only be learned by association. In a paper which I had the honor to present to the New York Homœopathic Materia Medica Society in 1897, I embodied this idea, and I wish to emphasize it now.

The knowledge of drugs that one gets from books is at best unsatisfactory. They have to be used to be understood and appreciated. It would be quite as easy to get to know a person by reading descriptions of him, as it is to know a drug by reading its symptomatology. To really know an individual, one must associate with him, to really know a drug, one must use it.

After the drug has been studied from a textbook and has been used, the prescriber is in a position to draw conclusions from the result. If he has kept careful notes he is in a much better position than if he has not.

Hahnemann says that the main object of the physician is to heal the sick. This can only be done when the physician is thoroughly qualified to judge of a patient's condition by careful examination, and when the physician is sufficiently posted as to the means at hand to know how to use them. There is no surer way to a growth in such knowledge than careful

note-taking. For more than fifteen years I have kept notes on every case, whether seen at the patient's home or in my office. This does not mean a jotting down of a remedy used or an occasional memorandum. It means that whatever information has been gained as to the patient's condition, subjective or objective, has been briefly set down at the time of the interview—not at one interview, but at every interview;—directions as to general care, diet, and lastly the drug prescription, have also been set down. In this way I have gradually accumulated, at comparatively little time and trouble, a mass of material as to diagnosis, symptomatology, prognosis and treatment, that is invaluable to me. This material is so indexed that in a brief time my experience in any given disease, or my experience with any given remedy can be read over, and put together if necessary.

That a symptom has appeared in a proving is of use to the homœopathic prescriber. But if the prescriber has verified that symptom he has something still more valuable to work on. If careful record has been kept such verifications may be used so as to be of service to others. Every prescriber should endeavor to make a diagnosis, because on that depends his general treatment and his prognosis. For the homœopathic remedy a diagnosis may or may not be of service. For instance, *bryonia* may be the indicated remedy in two cases, one of pneumonia, the other of typhoid fever. The two cases will have to be handled differently, yet each may call for the same homœopathic prescription.

In teaching, I try to impress upon students that although certain remedies are more frequently indicated in any given disease, any remedy *may* be indicated according to the symptoms. In other words, the totality of the symptoms is the proper thing to prescribe on. There is no such thing as a specific for any disease.

To be a good prescriber one must know the *materia medica* as set down in the books first. That is necessary as a basis to build on. But to really know the possibilities inherent in drugs one must use them and note the results. These again must be compared with each other and with the provings and with the experience of others. To this there is no end. No one can possibly get to the point where there is nothing more to learn, but he can keep constantly gathering and accumulating wisdom from the experience of himself and others.

A STUDY OF *APIS MELLIFICA*—THE HONEY BEE.

BY

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THIS insect, true to its animal origin, has skin and urinary symptoms resembling those of cantharis, and coexisting there are found some symptoms like those under the ophidians, but in a milder form.

The bee, like the lachesis snake, has a hypodermic syringe concealed about its person, which it uses with quickness and dispatch like the snake. Its use causes both general and local symptoms.

General Symptoms: Sub-acute inflammations of serous membranes with effusions. Inflammation of the tubule uriniferi, giving as a result scanty urination, albuminous urine, and tube casts. Mentally, there is either drowsiness, or irritability with quick awkward movements and jealous or silly disposition. There is a nervous restlessness running through its pathogenesis, alternating with drowsy lethargy, serving as an indication in general affections. There is also thirstlessness and a four to six P. M. aggravation.

Local Symptoms: Locally the bee sting gives us very quickly a rosy pink inflammation, involving the skin and cellular tissue, which quickly becomes *oedematous*, and is accompanied by *burning, stinging pains*. This picture points out the symptoms of the drug in diseases of the skin and cellular tissue, and in diseases of the ovaries.

To summarize, the chief characteristics are:

Drowsiness,
Fidgetiness,
Oedemas,
Thirstlessness,
Scanty urination,
Tongue trembles, when protruded,
Burning, stinging pains,
Four to six aggravation.

Special Diseases: Dropsies, Meningitis. In infants, tubercular or not, after effusion has taken place, there are dilated pupils—the *cre encephalique*; the child bores its head into the pillows. the urine is scanty.

Generally follows *belladonna* or *bryonia*.

Analogues: Sulphur, Hellabore. See: *Belladonna*.

Dropsies of Cellular Tissue. These may be in any part of the body, or in the form of a general anasarca. The skin is waxy and transparent like alabaster, the urine scanty and albuminous, there is sensorial dullness, thirstlessness, parts feel bruised, bloating under the eyes.

Analogues: Arsenicum oedemas, with an earthy or greenish skin, there is rapid and great prostration, thirst for small quantities at short intervals. Suffocative spells at night, anxiety, restlessness, skin cool, burning heat inside, malarial dropsies, extremities most affected.

Acetic Acid. Midway between *apis* and *arsenicum* distinguished from both by the characteristic thirst and the predominance of gastric symptoms, especially the sour belching; there is diarrhœa and emaciation.

Apocynum Cannabinum: A diuretic; especially suited to abdominal dropsies; there is unquenchable thirst, a copious, yellow or brownish diarrhœa, a gone feeling in the abdomen and dyspnoea, hydropericardium, venous engorgement, weak pulse.

Bryonia Alba: Ascites, anasarca or hydrothorax especially after scarlet fever, worse day, better at night, worse from motion, dizziness on rising, thirst for quantities, splitting headache, dry mucus membranes, constipation. Dropsies from liver troubles or after suppressed eruptions.

Cactus Grand: Oedemas from heart complications, with the feeling of constriction or pressure about the heart as though it were grasped by the hand.

China: Dropsies following hemorrhage, complicating liver or spleen diseases, associated with acute anæmia from loss of vital fluids.

Digitalis: Dropsies complicating organic heart troubles, the swellings pit deeply on pressure, there are cyanotic symptoms, weak or intermittent or irregular pulse, difficult micturition, yellow spots before the eyes.

Lachesis: After scarlet fever with liver, heart or puerperal diseases. Depressed states of the blood, petechial spots, worse after sleep, cutaneous hyperæsthesia.

Lycopodium Clavatum: Upper part of the body emaciated, lower parts swollen, red sand in urine, sour secretions, flatulence, fanning motion of the alae nasi, venous engorgement showing through the skin, associated with cirrhosis of liver.

Sulphur: Dropsies following suppressed eruptions or chronic diseases. Hydrothorax, rough skin, sweats easily, secretions offensive, hot flushes, morning diarrhœa, hot palms, hot soles, hot vertex.

Antimonium Tartaricum: Hydrothorax with much rattling of mucus in the chest.

Therapeutic uses of apis.

Rheumatism: Pinkish oedematous swellings of the joints, with burning, stinging pains, skin over the joints looks tense and shiny, especially if subacute or chronic, scanty urine, thirstlessness, worse from motion. The rheumatisms that are cured by bee stings are those that call for *apis* homœopathically.

Analogues: See: *Rhus Toxicodendron*.

Diphtheria or *Tonsillitis*: Chief indication, oedematous swelling of tonsil, uvula and fauces, difficult respiration, "patient feels as though he could not get another breath," stinging pains.

Analogues: *Diphtheria*: The mercuries, the halogens, the vegetable acids, the kalis, lach; and tonsillitis: See: *Belladonna*.

Ophthalmia, *Asthenopia* and chemosis, puffiness of the conjunctiva showing oedema; oedema of lids especially lower, better from cold applications, burning, stinging pains.

Ovaries: Oedema of right ovary, with burning, stinging pains.

Urticaria, *Nettlerash*: Pinkish white welts, which itch, burn and sting constantly, associated with general *apis* symptoms, perhaps with kidney troubles. Compare:

Urticaria, with gastritis: Mixed over-eating, *nux vomica*, *pulsatilla*.

Urticaria, with gastritis from spoiled food or ices; *Arsenicum*.

Urticaria, with gastritis from shell fish; *Urtica urens*, *terebinthina*.

Urticaria, from cold, damp exposure, *cal. carb.*, *Dulcamara*, *Rhus tox.*

Urticaria, during menstruation: *Pulsatilla*.

Urticaria, Malarial: *Natrum muriaticum*.

Urticaria, Fright: *Aconite*.

Urticaria, After washing: *Calcareo carbonica*.

Urticaria, Rheumatic: *Rhus tox.*, *Bryonia*.

Urticaria, From heat: *Bryonia*, *Mercurius*.

Urticaria, Teething children, *Chamomilla*.

Urticaria, Chronic : Causticum, Calcarea carb., Sulph., Psorium.

Urticaria, Vesicular from getting wet : Rhus tox.

Urticaria, Uterine : Pulsatilla, Sepia, Belladonna, Apis.

Urticaria, With diarrhœa : Dulcamara.

Erysipelas : Rosy inflammation from the start, later livid, cellular oedema quickly appearing, bruised sore feeling, burning, stinging pains, scanty urine, thirst, drowsiness.

Albuminuria : Post scarlatinal or not, urine scanty or suppressed, high colored or foetid, contains albumen, blood corpuscles, casts, and epithelium. Sudden oedema, appearing first below the eye, showing tense white skin, thirstlessness, mental hebitude, oedema of lungs with great dyspnoea and suffocative constriction about the throat, pain in renal region, soreness on pressure or when stooping, sudden pains along the ureters.

Arsenicum : Progressive emaciation, progressive debility, skin pale, waxy, dry, thirst, gastric intolerance, anxiety, restlessness, periodical aggravation, diarrhœa, indicated more by general than by local symptoms.

Aurum : Mercurial or syphilitic cachexia or associated with diseases of the left heart.

Cantharis : Early and acute stage, especially after traumatism or exposure, violent local symptoms, strangury, hæmituria. Quantities of albumen or epithelial cells. Post scarlatinal, diphtheretic nephritis.

Digitalis : *Nephritis* secondary to organic heart lesion with oedema of the lower extremities.

Terebinthina : Suited to the earlier stages, and to acute albuminuria, when blood and albumen are abundant, casts and epithelium, scanty urine, looks *smoky*.

Mercurius Corrosivus : After abuse of alcohol, after cold or after portal obstruction, tending to glandular swelling or ulcerations, violent local symptoms, great tenesmus, dysenteric complications, destructive nephritis, urine loaded with blood ; tube casts, epithelium, albumen, dropsy after exanthems.

Nitric Acid : Bright red blood in urine, showing nephritic hemorrhage, contracted kidney.

Secale : After scarlatina, thin scrawny subjects, thick, black blood in urine.

Phosphorus : Albuminuria with excessive anæmia, fatty degeneration of kidneys. Leucocythæmia, nervous exhaustion, excessive sensitiveness to atmospheric changes, worse before a

storm. Tickling cough, tuberculous subjects, tall thin narrow chested rapidly growing youths, carious tendencies.

The above remedies present local or general symptoms, pointing them out as especially suited to Bright's disease, or to diseases complicated with albuminuria. When the varied ætiological factors entering into this condition are considered, the extensive range of remedies that may be indicated may be partly conceived of. Much would depend upon the ætiological factors. Acute Bright's disease, following acute diseases, as scarlet fever or diphtheria, would bring to mind one class of remedies, chronic cases following a season of mental or emotional strain another, and cases secondary to heart, liver or suppurative diseases, others and so on. It may be stated as approximately true, that the remedy for this disease is selected oftener from general symptoms presented than from the local, and it is also true that it is often very difficult to ascertain the exact nephritic pathology existing, prior to post mortem investigation. Another thought and *apis* can be dismissed for the present. It is this: the treatment of dropsy will generally depend upon its cause, dropsy being only a symptom, and the remedy selected must have a selective affinity for the seat of primary lesion or be clearly indicated by characteristic symptoms. The location of dropsy will generally point out the primary lesion, those associated with æmia generally appear in the lower extremities, and are better in the morning. Such dropsies indicate such drugs as: *China*, *ferrum*, *calcareæ phos.*, *arsenicum*.

Those associated with the heart lesion generally begin in the lower extremities, and indicate such drugs as: *Digitalis*, *cactus grandiflora*, *strophanthus*, *spigelia*, *rhus tox.* and *veratrum*.

Those associated with kidney troubles, generally begin in the face and indicate the line of drugs hereinabove recited. Those associated with hepatic obstructions generally begin in the abdomen in the form of ascities, and indicate such drugs as: *Bryonia*, *strychnia*, *mercurius*, *china*, *chclidonium*, *lachesis*, *lycopodium*, *carbo vegetabilis*, and *podophyllum*.

RESUME OF CHARACTERISTICS.

General:

- 1.—Fidgety restlessness.
- 2.—Mental lethargy.
- 3.—Thirstlessness.
- 4.—Scanty urine.

5.—4 to 6 P. M. agg. (malaria, etc. .)

Local:

1.—Dropsies beginning under eyes.

2.—Œdemas with all inflammations.

3.—Dropsies of serous membranes after bryonia; meninges, pleura, pericardium, peritoneum, tunica vaginalis, joint articulations.

5.—Pink inflammations with cellular œdemas.

6.—Articular rheumatisms with effusions.

7.—Physical depression and muscular tremors characteristic of animal drugs always present.

TUBERCULOUS INFECTION AND TUBERCULOUS AFFECTION.—According to Meissen (*Beitrag zur Klinik der Tuberkulose*, Bd. XI, H. 2). The direct transmission of tuberculous disease by association with the tuberculous is demonstrably rare where it might be most expected, e. g., in hospitals and sanitorial service, in physicians specializing in diseases of the throat and lungs, in the population of health resorts frequented for decades by the phthisical, in the conjugal state. The widespread fear of infection, phthiseophobia, is, therefore, without reason, and, as exhibited nowadays, causes only confusion and harm. On the other hand, the post-mortem results recorded in pathologic anatomy point to an almost universal tuberculous infection (*psora, meine Herren?*) of civilized mankind, considerably above 90% (Nageli and others). If we eliminate those dying of tuberculosis, we still have a 60% infection. Similar figures are obtained from the healthy, i. e., where tuberculosis is not clinically present, by means of the cutaneous and subcutaneous tuberculin reactions. To dispose of this apparent contradiction, it is essential, clinically, to differentiate the concept of tuberculous infection. (The primary invasive action of the tubercle bacillus) from the concept of tuberculous affection or disease (clinical tuberculosis), even though the anatomic processes may be essentially the same. Against the invasion of the tubercle bacillus no one is immune, but such invasion leads first only to the formation of minute, latent foci, borne usually by the organism for a considerable period of time, and which may, but not necessarily must, develop a tuberculous affection. The tuberculous affection or clinical syndrome develops commonly only because of influences coincident in general with those earlier described as causative of tuberculosis, viz. heredity and numerous general and individual traumatic factors. In truth, these are only provocant of tuberculosis, whose final cause is the tubercle bacillus. Such concept of the matter offers far more satisfactory explanation of many problems in tuberculosis where the viewpoint of a pure infection, the lessened tuberculous mortality in some countries, due not to a fection or contagion is plainly untenable, as in: The genesis of the common forms of tuberculosis, the doctrine of pre-disposition, the concept decrease of infection, but to a removal of morbi-facient conditions and influences. The campaign against tuberculosis is not helped by the persistent and monotonal emphasis of the possibility of infection.

THE VALUE OF CHEMISTRY TO THE PRACTICING PHYSICIAN.

A lecture delivered before the Chemical Department of Hahnemann Medical College of Philadelphia.

BY

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THERE is a tradition with students of medicine that chemistry is a subject to be avoided—and there is nothing dies a harder death than tradition. Accepted “facts” are quickly, even eagerly, cast aside on the slightest provocation, for mankind is so constituted that it delights in overthrowing established assurance, but with a tradition it is different. Tradition has no aggressive pose of its own—it is just a subtle thing that we feel almost without being conscious of it, and, being such a gentle, unobtrusive, elusive, thing, it arouses within us no desire for combat, but rather just a good natured acceptance of its existence.

Even a tradition may come to an end sometime, however, getting weaker and weaker, as the years go on, until finally it fades away in the light of broader knowledge, as ghosts and other queer shadows of the night, fade in the rays of the rising sun.

Let us consider for a moment the origin of this particular shadow, this tradition that chemistry is of no importance to the medical student. Fifty years ago the study of medicine consisted, practically, of the study of anatomy, and of surgery, and of the *art* of prescribing medicines. Physiology was taught but it was a crude and inaccurate physiology, and the descriptions of physiologic processes were based rather upon theoretical deductions, than upon laboratory experiment. Within a few years after graduating from his two years' course of such study, the general practitioner forgot his anatomy, forgot his physiology, and rested upon his ability to prescribe such remedies as would best relieve his patients. It was possible to become adept in this art, and many a lasting reputation was founded in this way. If to this happy faculty of prescribing, we add a pleasing or a convincing personality, and just enough, and not too much, of the spirit of quackery, we have the making of the eminent physician of the day. Many of you have known such men and have admired them—some of you have

them as preceptors—and when they tell you that they have attained to their eminence in the profession without knowledge of even the first principles of chemistry, you conclude, naturally, that here is a subject you may safely neglect. But, remember this! These men are living on reputations made years ago. They could not again, to-day—no one could to-day—build for themselves a first class practice, nor attain to even slight distinction, without a very different knowledge from that which they in the past found sufficient.

To-day it is not enough to prescribe medicines and, when these fail, to deplore with the family the “heart failure,” or the “decline,” which has carried the patient off. A man, to-day, must diagnose disease in the light of modern pathology. He must make prognoses with something like scientific accuracy. He must be able to explain the pathologic process present and to describe the normal condition from which it varies. He must be able to read and write intelligently, accurately, and with judgment—an ability to do which, implies and necessitates in itself, a liberal education. He must be able to give his patients intelligent instruction as to their body functions, and he must be able to give trustworthy answers to their questions. He must know and he must be prepared to explain, to use, and to properly value, all scientific aids to his profession. He must know the scientific work of the day in many fields. He must be familiar with the best practice in house and body hygiene, in municipal sanitation, with the laws of epidemics, of contagion and of disinfection. He must know the chemistry of food, as well as of its digestion—and, finally, he must be able to go upon the witness stand and there undergo rigid cross-examination in all these and in other matters, as well as in the methods of his practice.

The practice of medicine is still an art, but it has become an art which uses all of the tools of science, and, for the practice of which modern scientific knowledge has become necessary.

There is a rather special reason that students of homœopathy should make themselves proficient in the sciences, and this is in the ignorant belief, current with those who know nothing of our school, that homœopaths neglect the scientific side of medicine, that chemistry and allied subjects are not taught in the homœopathic colleges. Of course this ignorance is what one might call a preferred ignorance, insomuch as these detractors of our school do not wish to be set right, and if one attempts to

argue with them, pointing out some homœopath who has contributed largely to modern science, they will tell you that such a man is not a true homœopath—that true homœopaths do not do these things.

I am going to digress a little, to tell you something of Hahnemann, who, as the founder of the homœopathic school, may, I trust, be called a true homœopath. I shall claim for him, first, that he was one of the most broadly educated men of his day, and then I shall speak of him with special reference to his knowledge of chemistry.

Hahnemann began his education in the schools of Meissen where he studied, and mastered, along with the ordinary school subjects, Latin, Greek, Hebrew, history, physics, and botany. Mastered them, I say, to such a phenomenal degree that at the age of twelve he was teaching a class in elementary Greek.

At Leipsic, his first university, he supported himself by teaching French and German, and by translating from the English, at the same time contributing poems in Latin to the papers.

From Leipsic he went to Vienna, but, for financial reasons left, before taking his degree, to accept the post of family physician and librarian to the Governor of Transylvania, cataloging the governor's famous collection of ancient coins, as well as his vast library, and studying always. Hahnemann in his autobiographical notes says, quaintly, of this period: "Here I had the opportunity to learn several other languages necessary to me and to acquire some collateral knowledge that was pertinent and still seemed to be lacking in me."

When he left this employment to obtain his degree, from the University of Erlangen, he was but twenty-two years of age, and was now master of Greek, Latin, English, Italian, Hebrew, Syriac, Arabic, Spanish, German and some smattering of Chaldaic. Hardly what one would style an ignorant man, as he has been represented, when you consider that these languages and their literature were merely added on to his regular studies in medicine and the sciences!

So much for his general education. Now, let me refer more especially to his work in my subject, chemistry. At Hettstadt and Dessau, in the beginning of his practice, we find him devoting his leisure hours to this subject, and to metallurgy, and, a little later, at Gommern and Dresden, beginning his writings in chemistry. One of the earliest of these books was a translation from the French on the "Art of Manufacturing Chemi-

cal Products," on every page of which his own notes appear, with directions for improved methods, and with corrections and additions. Other translations followed: "On the Art of Distilling Liquors," "The Art of Making Vinegar," and "The Detection of the Purity and Adulteration of Drugs," so amending and adding to this last as to make of it a new book. From the French, also, we have "Poisoning by Arsenic, Its Treatment and Judicial Investigation" with improved methods of analysis which were original with Hahnemann and which brought him much praise from the chemists of the day. Then we have a translation from the Italian, "On the Art of Making Wine," with original notes; then several translations from the English: Young's "Annals of Agriculture," Rigby's "Chemical Observations on Sugar," and Monro's "Medical and Pharmaceutical Chemistry," 2 volumes.

All this at the same time with other translations dealing with purely medical subjects, and, also, original articles in medicine, and, original articles in chemistry. Among these last, published is Crell's "*Annalen*," the leading chemical journal of the day, we have the following: "On the Preparation of Soda," "On the Influence of Certain Gases in the Fermentation of Wine," an "Essay on a New Agent in the Prevention of Putrefaction," an article on "Baryte," another on "Plumbago," "The Preparation of Soluble Mercury," "The Preparation of Glauber's Salts," and "The Art of Wine Testing."

As regards his practical work in chemistry, Hahnemann had been appointed *Stadtphysikus*, an officer whose duty it was to visit the chemists' shops and to inspect and examine their drugs for substitution, adulteration, and so forth. It is needless to say that such an appointment, in itself, was a recognition of his ability as a chemist. His original methods of analysis were being used in many laboratories and were obtaining for him the friendship and praise of such men as Berzelius, the great Swedish chemist, and of Lavoisier, the great Frenchman. The routine method of analysis for metals originated, almost as it stands to-day, with Hahnemann. It was he who first indicated the method of precipitating by hydrogen sulphide in acid solution, the metals of the first and second groups—arsenic, antimony, lead, silver, mercury, copper, tin and bismuth—and thereby separating them from the metals of the iron group which are held in solution by the acid. This discovery alone would have made him promi-

nent in the chemical world and would have earned for him a place in the history of chemistry—had he not forfeited this recognition by antagonizing the scientific faculties of his day by his later, iconoclastic, work in medicine.

Do you realize that the work done by this man was done at a time when all research was conducted under most difficult conditions, when laboratory appliances were most crude, and text books, as we have them to-day, unknown? A worker in those times had first to conceive his problem, devise the means of testing it, make the apparatus he was to use, and, most difficult of all, originate for himself the chemical theory involved; and yet Hahnemann accomplished an amount of work which, to-day, with all our resources of libraries and laboratories, of educated assistants, and accumulated knowledge, would be considered tremendous.

I believe that I have proven my claim that he was a man of exceptional scientific attainments, have I not? And yet he was a homœopath, you know! and this leads me to speak of just one more thing, rather extraneous to my subject, but which comes so forcibly to my mind that I must bring it in, even at the expense of being accused of wandering.

Have you ever come across one of these homœopathic physicians who boasts that he is a true Hahnemannian, that he gives his patients nothing but the single remedy in high potency, who sneers at local treatments, and palliatives, at vaccination, at antitoxin, at antisepsis, almost; who, in short, will have nothing to do with anything more modern than Hahnemann himself? If you have, let me warn you not to accept such a man at his own valuation. He says he is a Hahnemannian, you tell him he is not! Such a man represents the class of men against whom Hahnemann fought all his life. Such men made up the medical profession of Hahnemann's day—men who would have nothing to do with the laboratory-working, investigating, experimenting Hahnemann. Hahnemann was almost the first to honestly seek for medical truth by scientific experiment. The men of his time, like the self-styled Hahnemannians of to-day, were content to rely upon textbooks written a hundred years before, they would have nothing to do with Hahnemann, because he, taking what was good from these books, insisted upon a utilization of later gained knowledge, and the raising of therapeutics, by laboratory work, from chaotic art to a science.

It is not then the man who follows, to the letter, Hahne-

mann's writings who is a true Hahnemannian, it is the man, who, acknowledging Hahnemann's greatness and the truth of his therapeutic law, goes on studying and investigating, adding to his knowledge and discovering new ways and better ways for the alleviation and cure of illness and pain. If Hahnemann were alive to-day, do you suppose that he would be thumbing over his books of a hundred years ago? The great principle of cure he discovered then, he would be working, with all his wonderful mind, to perfect and develop. He would be living in the laboratories, a laboratory worker, a research student, reveling in the advantages supplied by the new physiologic chemistry and by the microscope.

By strange fortune, to-day, the *old school physicians*, backed by their university laboratories and wealth, have claimed for themselves all the honors of research work in medical science, denying these honors to that *new school* which suffered persecution in order to force these very ideas upon the medical world:

The child brought forth in suffering by its mother is coolly taken possession of by a sterile old maid.

Now, to return to our subject—the value of chemistry to the **practicing physician**. We, as physicians, have in our care the human body—this is the purpose of our existence. Of what is the body composed? Of various chemical compounds. Of what does life consist? So far as we know, of various chemical changes taking place within the body. How is the body life maintained? By supplying to the body the proper chemical compounds in proper amounts; by subjecting these compounds to chemical processes outside of the body (cooking), and then, within the body, to other chemical processes (digestion), by which they are prepared for absorption, and for the still more complex changes which they must undergo before being built up into the body tissues. And here, again, in the tissues, other changes begin, the assimilated substances in the complex chemistry of the body cell, supply energy, heat, and substance to the body and then, being used, are reduced down to the simpler chemical compounds which are finally excreted.

What is disease? In most cases, the formation within the body of chemical substances, which, not belonging there, or not belonging in the particular part in which they are developed, or being formed in excessive or in deficient amount, exert a deleterious action on the organs of the body or upon the body functions. Such a definition, I realize, is liable to criticism, but fault

will be found with it chiefly by men of limited scientific vision, by intellectual myopics, men who can read only the larger print in nature. For instance: How about headaches? Are these not due in most cases to the action of leucomains, or other chemical compounds, toxic in character upon the brain cells? Is it a case of heart disease, say of degenerated heart muscle? Well, the trouble here may be in the loss of that chemical power of the muscle fibre cell which, ordinarily, enables it to utilize fat for its growth. In the loss of this power, the fat, a chemical compound, of course, in itself, becomes accumulated in the tissues, and the latter weakened accordingly. Is it a broken bone? Is not the whole chemical energy of the neighboring body cells immediately devoted to the chemical problem of producing and depositing in the proper place the various calcium and albuminoid compounds needed to repair the damage? Is it a tumor? Is not this an example of local over-production of chemical compounds, always remembering that the tissues themselves belong to this category? These examples may seem far-fetched to some, but I declare them to be chemical problems, however obscure the chemistry may be, just as truly as are rheumatism, gout, diabetes, and indigestion.

Even in a germ-disease, remember that the general symptoms, the prostration, the delirium, the heart weakness, etc., etc., are due to the chemical compounds, the toxins, produced by the germ.

Health and disease are, then, matters of chemistry, and if the latter is sometimes obscure it will certainly not always be so.

How is disease to be treated? Largely by administration of chemical compounds, or remedies, which by their influence will combat the body poisons, or will stimulate the body functions to more normal action. (Here is a vast field for chemical research, for it is only within the last few years that the relation between the chemical molecule and its therapeutic action has been approached in scientific investigation.)

How about surgery? Is chemistry of any use to the surgeon? Ask one—and he will probably tell you that it is not, but it would be if he knew anything about it. How about the antiseptics he uses, does he use them intelligently? From the moment he prepares his hands for the operation until the last dressing is in place, he is using, in antiseptic surgery, chemical compounds. Is it worth nothing to him to know the exact action of these compounds on those other compounds, the

tissues of the body? What is the action of the chemical disinfectant on albumin, does it coagulate it, dissolve it, or destroy it? Is this of no importance to the surgeon? It certainly is to the patient! I have seen surgeons wash a wound with one substance and then apply a dressing or treatment of another, a chemical antagonist to the first. What is the final result? In some cases merely that of making an inert aseptic application, and this may have been the intention, or it may not have been. More seriously, however, two different antiseptics may be used which by their combination may liberate a by-product irritant and harmful to the wound. Is it worth nothing to know the degree of penetrability of the various antiseptics? This depends upon their chemical reaction with the body tissues. Again I say, if it is not interesting to the surgeon it is important to the patient.

So much for the use of remedies, and for the use of antiseptics, but do you realize, gentlemen, that no form of therapeutic treatment, even the physical—by temperature changes, by electricity, by light, by radium, by the X-ray, by vibration, or by massage—no form of treatment, I say, has any effect upon the body or upon the disease treated, except by setting up chemical changes within the body. These latter forms of treatment are called physical, but they are no more physical than is the act of the chemist when he applies heat, agitation, or electricity to effect a chemical change in the laboratory. The physical means is but used to produce a chemical result.

It will be conceded that to recognize and understand disease in the body it is necessary to know the structure of the normal body—it is equally necessary to know the body's functions. In fact, from the standpoint of the practicing physician, it is oftentimes more important to understand function than it is to know structure. A knowledge of normal and pathologic anatomy is of prime importance in scientific diagnosis, but a knowledge of normal and pathologic function is of more importance in the treatment and relief of the patient. Here chemistry is essential. A few, but only a few, of the body functions are physical, the great majority are chemical in nature, some simple chemical changes, others of wonderful, and, in some cases, still unanalyzed complexity.

The digestion of food, its assimilation, cell growth, the functions of life, the action of the secreting cells, of the ductless glands, the elimination of cell and body waste, the urine, the

faeces, nerve tissue, nerve impulse transmission, even the mental function itself, are all examples of chemical processes going on within the body. Is it worth nothing to the physician who has the care of a man's body, to know how that body lives, to know exactly what is taking place, or what should take place, and, knowing this, to recognize what possible or probable error in the normal function may be present in the diseased condition for which the patient is asking help?

Digestion is very evidently a chemical process from beginning to end, and, as already mentioned, the assimilation of the food, and the metabolism within the body—the anabolic and katabolic processes by which our body tissues are made and unmade in life—indeed life itself—are all chemical problems. Chemical compounds introduced into the body as food, are disintegrated and from the separated parts new chemical compounds are formed.

The chemical compounds of the body, the body-tissue components, undergoing oxidation and other chemical transformations supply the energy of the body. By chemical changes our muscles support and carry us, our nerves convey to the brain our sensations and transmit from the brain its orders. Our respiration effects a chemical change in the blood, and by chemical change the heart maintains its rhythmic labor. Is chemistry then of no importance to one who sets himself up to care for this great chemical factory of ours?

Who can arrange an intelligent diet for a patient if he does not know the chemistry of food and of the body needs? If more knowledge were current in this direction we would be spared many fads in diet which obtain more or less popular support from physicians.

I have an idea that chemistry to most physicians means urine analysis and nothing else, and even under this head they place merely the act of analysis itself, the making of some two or three or half a dozen tests. Now, I am not going to speak of urine analysis for precisely this reason. It is, of course, a most important aid to diagnosis but it is, also, really insignificant as compared with the multitudinous other reasons why chemistry is of value to a physician. I will say this in passing, however, that the value of chemical knowledge, in making an examination of urine, lies only in part in the mere making of the tests, a greater call is made upon chemistry—upon our knowledge of

the chemistry of the body and of the excretions—in our interpretation of the results of the analysis.

This is why some men, ignorant of chemistry, knowing simply the bare technic of a few urine tests, have found these tests of little value to them in their practice, and have, therefore, decried the whole subject of urine analysis. A palette and paints and brushes would be valueless in my hands but I know that an artist can use these things with effect. As well might I decry the paints as useless, as these ignorant physicians the tests of which they know not the meaning.

My special plea for chemistry is, then, the broad claim that the body is a chemical problem and that the man to care for it is one who, from his knowledge, is capable of handling chemical problems. The fact that some physicians succeed financially without such knowledge, is paralleled by the fact that an incompetent factory superintendent may, personally, make money, though the factory itself will likely suffer from his incompetency. My argument has been chiefly from the standpoint of the patient's—the factory's welfare. There are, however, other reasons of practical interest to the physician himself—by which his status in the community and, nowadays, his success is to be determined.

The physician is supposed to be a scientific man, he is supposed to be able to give an opinion worth while on all matters of scientific interest. He is appealed to by his patients to explain phenomena and to give his opinion of recent discoveries. He is asked questions on all manner of subjects and his answers are listened to with respect—until he is found out. I have to add the last clause for it is most unfortunately true that few physicians come up to the ideals of knowledge attributed to them by their patients. If a man is to have the respect of his educated patients he must be well grounded in the sciences, and that science with which he will be expected to have a special acquaintance, will be chemistry. No one will think less of him if he knows nothing of astronomy, for instance, he may never have heard of a double-star, he may not know when the earth is in aphelion or when it is in perihelion but he must know the composition of baking powder. I once heard of a physician who attributed a case of lead poisoning to a habit the patient had of sucking a lead pencil, the "lead," of which you may remember, is made of harmless carbon. Such an ignoramus can not, of course, practice among educated people; if he is to live

at all, he must seek his own low level and draw his clientel from the ignorant classes.

A physician will be asked questions regarding sanitation. Municipal problems will arise and will be discussed in the papers. How about sewage disposal? What about the water supply, the purification of water, water analysis? How are you going to answer these questions if you do not know? So with milk analyses and with food analyses. It is not necessary that you shall become actually expert in this difficult work, but it is necessary that you shall understand it, and be able to interpret the work of others. Look at the silly analyses of foods—of patent foods, that are circulated in the public press and in pamphlets sent to the medical profession as well as to the lay world. Do you suppose that these gems of chemical deception would be used as advertising matter, did the manufacturer not know that not one in ten thousand of the readers of these pamphlets will ever detect anything wrong or absurd in them? In most cases the analysis of a piece of pine board would give as satisfying a result, and yet, after gravely inspecting these tables of analyses, many a physician will, as gravely, recommend the product to his patients.

O it is all wrong, gentlemen! For goodness sake learn something here in college! Make yourselves educated men. Prepare yourselves so that when your knowledge is called upon it may not be found wanting. Try to understand the physiology of life, the chemistry of the body, try to know what is wrong with your patients, to make scientific diagnoses of conditions rather than of named diseases. Know, so far as is possible, the chemistry of the remedies you give.

Try to make your work worthy of the brains God gave you!

Is chemistry of value to the physician? Well, I meet men who know nothing of it, and they practice medicine, but I don't know how they do it!

RECOGNITION OF NASAL TUBERCULOSIS.—Ernest Gerst (*Arch. fur Laryngal und Rhinol*, Bd. 21, Heft. 2), calls attention, in a thorough study of the subject, illustrated with many anamnesias, to the fact that nasal tuberculosis is far more common than ordinary clinical observations would infer. Repeated clinical and microscopic examinations have demonstrated that numerous cases classified as hypertrophies, and presenting the syndromes of diseased nasal inucosæ, are actually latent tuberculosis, both in the histologic findings as well as by their later clinical course.

CORRESPONDENCE.

BRYONIA AND RHUS IN ALTERNATION.

MENTION was made in the April *HAHNEMANNIAN*, p. 307, that "the early homœopaths were in the habit, as are too many to-day, of giving bryonia and rhus alternately to all their typhoid fever patients, the journals containing many brilliant cures by this treatment. . . . They should not be prescribed conjointly."

Why? Because, "the pathogeneses of these drugs proclaim that they are direct opposites in all their chief characteristics."

Well, what of that? If drugs whose pathogeneses are contradictory, can when "prescribed conjointly" give "many brilliant cures," by all means let their conjoint use be encouraged. What we as physicians are in duty bound to do, both for our own sakes and for the sake of our patients, is to make as many "brilliant cures" as possible, not to prescribe after any dogmatic rule, or to be consistent with any preconceived theory. Especially is this the case when that theory is proven over and over again not to be in accordance with facts.

Instead of saying with Old Hickory, "So much the worse for the facts," it is much more reasonable to say so much the worse for the theory.

I wish to add my testimony against the theory in another line of pathogenetic conditions, namely, rheumatism. There are cases of rheumatism where bryonia alone, or rhus alone will not cure, no,—nor even modify the case: but where the two remedies in alternation will in the course of a few hours produce beneficial results, and carry the case to complete relief of all symptoms in a very brief space of time.

I have myself had three such cases during the winter just past. In two of these cases the remedies were tried alone at first: in one case bryonia for rheumatic swelling about the knee joint, not inter-articular. Bryonia was tried for 24 hours with no satisfactory results: rhus followed the next 24 hours with similar dissatisfaction. The two alternated hourly from 10 A. M. to 5 P. M. produced great relief, and the following night the first good restful sleep for a week was experienced.

In another case of rheumatic swelling, stiffness and soreness of both the lateral and posterior muscles of the neck and shoul-

ders on either side, rhus was used at first without relief for more than 24 hours: bryonia followed with no better results: the two alternately, 3x potency, every 2 hours, relieved greatly in less than 12 hours, and produced a complete cure inside three days.

Let me add, that I do not usually prescribe both remedies together, but quite the contrary.

Perhaps some one would like to know the cases where they are used.

This is the last case as I now recall it: On the 22d of March, 1909, Mrs. R., 35 to 37 years; married, mother of two children; tall, spare, nervous, fair, brown hair; complained of soreness and pain in muscles of neck on both sides: had been suffering three or four days, and "finally could stand it no longer": neck and shoulders stiff: all motion painful: does not limber up from use but grows worse: not better sitting or lying, especially worse at night: must get up: some better from heat: worse from pressure: swollen only on sides of neck at base: white, soft, tender to pressure: this I observed carefully, for it seemed most unusual. History of walking to church with a cold wind blowing on back of neck: some pain next day, but went to town shopping, and rode in a street car for three-quarters of an hour each way, with feeling of cold wind on back and shoulders. Stiffness much worse that night: pain worse: restless, not easy anywhere. This brings to 22d March, as above: 10.30 A. M., rhus tox 3x, 1 hour: report P. M.; 7 P. M. no better: continue one-half hourly to bed time. 23d not improved except a little less restless: but very little sleep: Bry. 3x, 1 hour; report P. M.: 5 P. M. no better: continue one-half hourly to 10 P. M. 24th wholly unsatisfactory: 11 A. M., rhus 3x and Bry. 3x alternately 1 hour; 8 P. M. much easier. 25th, 10.30 A. M. much relieved: continue remedies 2 hours. 26th, by telephone, feeling much better; no need to call; up and about house, but with some traces of pain: med. 2 hours for day. 27th, sent to office for renewal of med.: ordered three hours between doses.

In the third case, also mixed, the alternation gave relief to lumbar soreness and stiffness from exposure, in 24 hours, and cure resulted in a few days.

M. W. VANDENBURG.

Mt. Vernon, N. Y., April 12, 1909.

OPEN LETTER ON THE INSTITUTE JOURNAL.

"Read, not to deny nor confute, not to accept and take for granted, but to weigh and consider."

TO THE MEMBERS OF THE INSTITUTE:

The following brief is offered in advance of the Detroit meeting, at which time, according to the contract, the Journal matter is again to be brought before us.

An official journal for the Institute was first proposed in the presidential address at the Atlantic City meeting in 1899.

At the Chicago meeting of 1905 the president, Dr. Royal, again advised it, and a committee was created, to report at the next session.

At the Atlantic City meeting of 1906 Dr. Green, in his presidential address also favored it, and the committee appointed the preceding year reported favorably, but after full and free discussion over parts of two sessions the report was laid upon the table.

Under all parliamentary law and usage this action dissolved the committee. Nevertheless, for some unexplainable reason it refused to stay dead and was continued on the programme, reporting progress at the Jamestown meeting.

Since it was tabled at Atlantic City the subject has never been properly nor legally before the Institute, it never having been regularly taken from the table, so far as the records of the Institute show.

At the Kansas City meeting, with but fifty-one present who had been at previous meetings where the subject had been considered, and with an unusual proportion of new members and others who rarely attend, two reports bearing upon the journal question were offered.

The Committee on Promulgation of Homœopathy offered the following suggestions: (The italics are mine.)

"Only a first class publication would answer the purpose; anything short of it would be a waste of time and effort."

"The fact that a journal endorsed as the official organ of the Institute and national in scope can at once begin with a fixed and large list of bona fide subscribers, and is thus from the start in a position to command excellent advertising patronage at good rates, has a fixed monetary value which some reliable house could be made to appreciate."

"Experience proves that a weekly publication of not less than forty pages, standard size, would not only be needed to make a

desirable journal, from a professional and literary standpoint, but that it could obtain better rates for advertising than a semi-monthly.

"The publishers should not be physicians and members of the Institute; *friction would result* and do the Institute permanent injury."

Then followed the report of the Journal Committee.

It advised that there should be made "in the name of the Institute a contract for not more than five years *with some reliable publishing house to publish a weekly journal* of not less than forty-eight pages."

"To contract to obligate the Institute to no financial responsibility beyond the amount of \$2.50 per annum for each member in good standing in the Institute, *each such member to receive a copy each week.*"

Following these reports discussion occurred—for which see the Transactions, pages 67-71, and the reports were adopted.

What has transpired since then is as follows:

The Journal Committee sent out impossible specifications and received no homœopathic bids. An editor's salary of \$3,000 was named, a forty-eight-page weekly journal, surveillance over the editor and over the advertising, and general control of the journal in the interests of the Institute were demanded.

The expenses necessitated approximated \$14,000.

For this the Institute was to pay about \$5,000.

The remaining \$9,000 was to be made up from outside subscriptions and advertising.

Nobody wanted the job.

Several homœopathic journals were ignored in the matter, notably the *North American Journal of Homœopathy*, which had opposed the idea at Atlantic City and again at Kansas City.

Finding it impossible to act on the basis they had outlined at Kansas City, and which the Institute had acquiesced in at their request, the committee called a consultation at Cleveland in October. To this the *Medical Century* was invited, *but no other homœopathic journal.*

At this time it was learned that the Lippincotts had made a tentative offer, but it was not considered because the Lippincotts publish allopathic books.

A Kansas City house also put in an offer, accompanied by a bond for faithful performance of contract, but it was not considered for like reasons.

Both had been asked to bid.

At this Cleveland consultation a contract, such as it is, not worth the paper upon which it is written, for reasons too numerous to mention, and which the Institute will be called upon at Detroit to confirm, was entered into upon an altogether different basis than that proposed and ordered at Kansas City, and for altogether a different periodical.

Then we were to have a weekly journal, by a responsible publishing house, at \$2.50 per annum per member.

Now we have a monthly periodical at \$2.00 per member.

Then we were to have a publisher not a physician and member of the Institute, lest friction result and permanent injury follow.

Now we have a publisher at once a physician and a member, and friction and interest quantum sufficit.

Then the committee was to have surveillance over the advertising.

Now that has been defined "as ethical which does not promise the improbable."

Then the papers and discussions were all to have a place in the Journal.

Now Section 6 of the contract says the editor shall have control over the assignment of space.

Then the contract was to have been made with some reliable publishing house which could be brought to realize the considerable monetary value of the Institute's membership subscription, and its prestige in relation to securing rates for advertising.

Now we pay \$5,000 a year of the Institute's cash to one of our already established journals to reduce its size and change its name and dress, the Institute gaining nothing out of its prestige and its twenty-two hundred members in one subscription bulk.

I am prepared to establish by incontrovertible evidence that the Institute can publish a semi-monthly journal for that which it now pays for a monthly, and make all the advertising clear, for the salary of the editor, the balance to go in the Institute's strong box.

I am also prepared to establish, from likewise indisputable evidence that the Journal can be published by the Institute—the printing, wrapping and postage—for less than one-half what it now pays for the same periodical.

I am also prepared to show that neither party to this remarkable five-year contract, purporting to bind the Institute in the sum of \$25,000, can legally enter into any such contract as the one which has been made.

It may also again be safely stated that by establishing an Institute Journal we not only destroy the real value of our transactions, as such, but that we also antagonize or invite the indifference toward the Institute and its work of nearly or quite all the other journals—thus with one killing the hearty support of almost twenty.

Large experience as a journalist justifies the view that all our non-official periodicals, every one of which is needed for the local and general propagation of homœopathy, will suffer a decrease in both subscription and advertising patronage because the Institute has set itself up in journalism against them. Advertisers will naturally consider an official organ of a national society its best advertising periodical, while subscribers will naturally, in many instances, give up journals for which they have to pay, because they are to get the Institute Journal in connection with their Institute membership. To my mind the twenty are more necessary and more valuable to the Institute and to homœopathy than will be the one.

Quoting from memory, the following journals have been altogether ignored in this matter :

The New England Medical Gazette.

The North American Journal of Homœopathy.

THE HAHNEMANNIAN MONTHLY.

The American Physician.

The Homœopathic Journal of Obstetrics.

The Homœopathic Eye and Ear Journal.

The Cleveland Medical and Surgical Reporter.

The Medical Counsellor, Detroit.

The Clinique, Chicago.

The Medical Advance.

The St. Louis Homœopathic Reporter.

The Critique, Denver.

The Progress, Denver.

The Iowa Homœopathic Journal.

The Pacific Coast Journal of Homœopathy.

The Homœopathic Recorder.

The Institute's Journal Committee seems to have practically surrendered all control over the journal to the publishing com-

pany which issues it. The editor is given the assignment of all space, and we retain no surveillance over the advertising so long as in the judgment of the publishing company it does not promise the improbable. And yet, the contract, in Section 8, does very kindly "permit the Secretary of the Institute to become associate editor so long as that official is persona grata to the party of the first part." This, it is understood, is why our Secretary declined to serve. He was to have been "permitted" so to serve, to have given of his time and ability, to a private enterprise of a private corporation, very considerably profitable, without compensation, fee or reward, except that as our Secretary he was to have been allowed to serve as associate editor of our Journal so long as duly obedient to the interests of the selected publishing company.

This is about the Institute's relation to its official periodical, according to the contract.

Why the unseemly haste which has been exhibited in this matter?

It had waited nine years, might it not have been made to wait another, or until the Institute, which had been promised a weekly and which at urgent request had ordered a weekly, could have decided for itself whether or not it wants a monthly instead? And if it should have decided to want it how it could best and most safely to all its interests set about getting it?

Not a single journal of our school except the favored one was asked to make a bid upon the monthly basis!

There are some phases of this subject that can hardly be properly discussed through an open letter or in the journals. In fact it is doubtful if some features of it would better be brought before the Institute, or would not be better threshed out in the courts. The Institute which entered into this contract is not yet an organized incorporation, and is certainly not yet empowered, has not yet empowered itself since incorporating, to engage in a business transaction of any kind. The whole affair has been done in a slipshod and unbusiness-like manner, and the Institute may well consider whether, while not yet too late, it would not be best to set the entire transaction and the establishing of an Institute Journal aside.

April 15, 1909.

C. E. FISHER.

THE INSTITUTE JOURNAL CONTRACT.

ARTICLES OF AGREEMENT.

WHEREAS, At the Annual Meeting of the American Institute of Homœopathy in Kansas City in June, 1908, it appointed the following Journal Committee: Benjamin F. Bailey, M. D., of Lincoln, Nebraska, chairman; Joseph P. Cobb, M. D., of Chicago, Illinois, secretary; C. E. Sawyer, M. D., of Marion, Ohio; George Royal, M. D., of Des Moines, Iowa, and R. S. Copeland, M. D., of New York City, with instructions to arrange for the publication of a weekly Journal with power to act; and

WHEREAS, After due consideration the Journal Committee concluded that a weekly Journal was impracticable but that a monthly journal can be published with much benefit to the Institute organization; and

WHEREAS, In a joint meeting with the Executive Committee represented as follows: W. D. Foster, M. D., of Kansas City, Mo., president; T. H. Carmichael, M. D., of Philadelphia, Pa., first vice-president; Joseph Hensley, M. D., of Oklahoma, Okla., second vice-president; J. Richey Horner, M. D., of Cleveland, Ohio, secretary; T. F. Smith, M. D., of New York City, treasurer, and J. H. Ball, M. D., of Bay City, Mich., registrar. The two committees decided it was for the best interests of the Institute to publish a monthly Journal and that the Executive Committee, jointly with the Journal Committee, has sufficient authority to arrange for the same; and

WHEREAS, The Executive Committee instructed the Journal Committee to make all necessary arrangements;

It is, therefore, stipulated and agreed by and between The Medical Century Publishing Company, of 9 East 42d street, New York City, party of the first part, and the American Institute of Homœopathy, party of the second part, to-wit: The Medical Century Publishing Company, party of the first part, hereby agrees to perform the following:

1. Discontinue the present publication, The Medical Century.
2. Establish in place thereof a periodical of forty-eight pages of reading matter of a size approximately eleven inches by eight inches, suitably printed and bound without colored cover, to be known as the Journal of the American Institute of Homœopathy.
3. To print and mail 2,500 copies of the said Journal of the

American Institute of Homœopathy, as follows: (a) to the members of the American Institute of Homœopathy; (b) the remainder to such other persons or institutions as the Journal Committee may direct.

4. To print and mail monthly such a number of copies above 2,500 as the needs of the Institute may require.

5. To furnish all copies for exchanges, publishers, writers of articles, not to exceed two each, and to reserve a sufficient number of extra copies each month, not to exceed one hundred, for future requirements of the American Institute of Homœopathy.

6. To furnish illustrating at the request of the Journal Committee and the discretion of the editor, to an amount not to exceed \$100.00 per annum.

7. To furnish space monthly, besides the forty-eight pages of literary matter, for the table of contents, list of Institute officers, schedule of prices for reprints, and print the index and title page at the end of the year.

8. To secure the services of Dr. W. A. Dewey, of Ann Arbor, Michigan, as editor of the publication; to PERMIT the Secretary of the American Institute of Homœopathy to be associated editor of the publication unless the said secretary becomes a persona non grata to the party of the first part.

9. To permit no advertising to be placed among the literary pages.

10. Not to accept less than three dollars (\$3.00) as a subscription to the said periodical, except in the case of undergraduate students, to whom the price shall be two dollars (\$2.00) and to pay the American Institute of Homœopathy one dollar (\$1.00) for each subscriber to the periodical who is not a member of the American Institute of Homœopathy. This shall not apply, however, to subscribers to the Medical Century, now on the list, until their present subscription has expired. Settlements for the above shall be made to the party of the second part quarterly, on the first day of March, June, September and December of each year, starting March 1st, 1909.

11. That the periodical shall appear not later than the 10th of each month of the year, except in case of unavoidable circumstances not controllable by the party of the first part.

12. That at the end of five years from the date of this contract, the Medical Century Publishing Company, party of the first part, will sell to the American Institute of Homœopathy.

party of the second part, the Journal of the American Institute of Homœopathy at an appraised valuation to be determined by three appraisers, one of whom shall be selected by the party of the first part, one by the party of the second part, and the third by the two chosen, a majority report to rule. Said appraisers shall be appointed not less than six months prior to the expiration of this contract, and their appraisal shall be finished and in the hands of the parties of the first and second part at least three months before the expiration of this contract.

The American Institute of Homœopathy, party of the second part, hereby agrees:

1. To subscribe for 2,500 copies of the Journal of the American Institute of Homœopathy at the rate of two dollars (\$2.00) per subscription, the same to be paid to the Medical Century Publishing Company, party of the first part, from the treasury of the American Institute of Homœopathy in cash, as follows: The first payment of \$1,250.00 to be made December 1st, 1908, and the subsequent payments shall be made quarterly on the first day of the months of March, June, September and December of each succeeding year, during the life of this contract.

2. To pay for such copies used by the party of the second part in excess of the 2,500 hereinbefore provided for at the rate of two dollars (\$2.00) for each and every subscription; payments therefor to be made commencing March 1, 1909, and quarterly thereafter as hereinbefore stated, upon presentation of vouchers therefor.

3. That ethical advertising shall be defined as that which does not promise to do the improbable, and the questions thereof to be left to the editor, the Journal Committee, and the party of the first part.

4. To pay from the treasury of the American Institute of Homœopathy for all illustrating in excess of \$100.00 per annum at the cost price, upon presentation of vouchers therefor by the party of the first part.

5. That in case of disability of the editor, Dr. W. A. Dewey, no editor shall be appointed as his successor without the consent of the party of the first part.

6. That the editor shall have complete control of the distribution of space of the literary pages and general "make-up" of the periodical.

This agreement shall be for the period of five years from the

date hereof, and in case of non-performance of these agreements by the party of the second part, owing to non-endorsement by the American Institute of Homœopathy in subsequent meetings, no obstacles shall be placed in the way of the party of the first part re-establishing the Medical Century and retaining the subscription list in its possession at the time of such non-performance of contract.

Signed by:

THE MEDICAL CENTURY CO.,
 W. A. Dewey, Pres.
 L. L. Carpenter, Secretary.
 WM. DAVIS FOSTER,
 Pres. A. I. H.
 B. F. BAILEY,
 Chairman Jour. Com.
 J. P. COBB,
 Secy. Jour. Com.

December 1, 1908.

THE BODY WEIGHT IN PREGNANCY.—Max Kruger has studied this subject extensively, and concludes his articles by saying that (1) The average increase of weight in the latter months of pregnancy is greater than is accounted for by the growth of the fetus, uterus, &c.

2. The increase in weight of the child may sometimes be independent of the nutrition of the mother, therefore may occur at her expense.

3. In pathological cases the weight curve on the chart may be distinctly influenced. In some cases the weight first indicated that a disease was present. From more careful examination it was then found that a apiceal lung disease existed which was overlooked at the time of her admission.

4. In some cases the weight does not proportionately increase, when no disease condition can be demonstrated.

5. A diminished increase of weight or a temporary diminution has no significance, because such patients may later increase in weight. A permanent diminution on the other hand, is always pathological.

6. In hyperemesis, tuberculosis and other diseases here is no indication for interrupting the pregnancy. This will only exist when we recognize with great loss of weight that there is a permanent serious disease in the mother. Besides many other methods of examination, weighing gives us a definite indication of just what influence pregnancy has upon the sick body of the mother. A continuous decrease or a persistently small increase, if other important symptoms exist, would call for the interruption of pregnancy.—*Beitrag z. G. u. G.* Vol. XIII, 257.

EDITORIAL

LAWS TO PREVENT PHYSICIANS FROM DISPENSING MEDICINES.

THAT there are strong influences at work endeavoring to create a sentiment in favor of legislative enactments to prevent physicians from dispensing their own medicines, except in sudden emergencies, cannot be questioned. Undoubtedly this move originated among the dispensing pharmacists, many of whom complain bitterly of the rapid falling off of the profits derived from dispensing drugs on prescriptions.

That this complaint is not without foundation is attested to by the following clipping from *The Chicago Tribune* of December 12:

"Drugstores in many parts of the city are closing their doors on account of decreased trade. Since last Monday seven drugstores on the south side have gone out of business. A number of north- and west-side drugstores have also closed their doors in the last ten days. Lack of business has been the cause in every case. . . . Some drugstores have installed a chop-suey and chile-con-carne lunch. A druggist says, 'We used to keep a boy other winters filling two-grain quinine capsules, but we haven't had a call for any of that dope in a week. I'll bet there haven't been six bottles of cough syrup sold at any downtown drugstore in a week. No wonder the drugstores are closing up shop. If it were not for the business we do in hot beverages, such as clam broth, bouillon and hot chocolate, downtown druggists could not pay their rent during the winter.'"

Several explanations have been offered as to the cause of this condition, but it is quite certain that the main factors in the falling off of the retail drug business are the growing custom among physicians of all schools of dispensing their own medicines and the growing popularity, both in the profession and among the laity, of drugless methods of treatment.

Whatever may be the cause, however, the position of the retail druggists is naturally alarming from their standpoint, and they feel that something radical must be done to increase their business. Obviously the most effective way of increasing their

trade would be to secure the enactment of laws prohibiting anyone but pharmacists from dispensing drugs. There is reason to believe that certain members of the American Medical Association are in favor of such a move because, it is believed that it would be a death blow to the popularity of homœopathic practitioners. Just how far the idea will meet the approval of the rank and file of old school practitioners is difficult to say, but as a matter of fact that would make but little difference if the powers that control the policies of the Association made up their minds to endorse the movement.

It is thought by some that as soon as the Association has succeeded in securing the adoption of a single medical examining board under allopathic control, in every state, their attention will next be directed to securing the adoption of anti-dispensing legislation. That this is not a mere flight of the imagination is shown by the fact that bills of this type have already been introduced into the legislatures of at least two states, namely, Oklahoma and Massachusetts. Inasmuch as the Massachusetts bill is a fair example of what may be expected to be proposed in other states we take the liberty of reproducing it as published in the March issue of *The American Journal of Clinical Medicine*.

AN ACT RELATIVE TO PHYSICIANS.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

SECTION 1. It shall be unlawful for any physician to compound or dispense any medicine intended for the use of any human being, unless such physician is a duly qualified pharmacist under the law of this State, except in cases of emergency; and all medicines compounded or dispensed in such cases of emergency shall be administered by such physician in person or under his immediate direction; and a record of such medicine, specifying the date and the ingredients and the quantities thereof, and the name and address of the person for whom compounded or dispensed shall be made by said physician and recorded in a suitable book to be kept by said physician. Said record shall be entered upon said book by said physician within twenty-four hours after the delivery of said medicine or the administration of any part thereof to the patient. Said record shall be preserved by said physician for the period of at least one year and shall be open to the inspection of the patient to whom such medicine was administered, and to the inspection of the husband or wife or any parent or child of such person, or to the duly authorized attorney of any such person or persons.

In all cases of emergency as hereinbefore specified, or where the physician shall be also a registered pharmacist, when the physician shall have

compounded or dispensed the medicine administered to the patient, and the patient shall die five days after the administration of said medicine, it shall be the duty of the health officer or the board of health of the city, town or county in which said death shall have occurred to ascertain and certify the cause of such death and said certificate made by the said health officer or board of health, as the case may be, shall be immediately deposited in the office of the said health officer or board of health, and shall be a public record and be permanently retained on file in such office.

SECTION 2. It shall be unlawful for any physician to collect or receive from any druggist or pharmacist, either directly or indirectly, any commission or percentage upon or any compensation for or on account of any prescription or prescriptions for drugs or medicine written by said physician, or sent, or directed to be sent, by him to said druggist or pharmacist.

SECTION 3. It shall be unlawful for any physician to recommend his patient or patients to any druggist or pharmacist, directly or indirectly, or to write or cause to write recipes or prescriptions upon paper bearing any druggist's or pharmacist's business card or label or any part thereof.

SECTION 4.—It shall be unlawful for any physician to order for any patient or patients, to leave with or send to any druggist or pharmacist, recipes or prescriptions, unless so ordered by the patient or patients, his or her relatives, or nurse in attendance.

SECTION 5. Any person violating any of the provisions of this law shall be punished for the first offense by a fine of not less than twenty-five dollars and for the second offense by a fine of less than one hundred dollars, and for the third offense by a fine of not more than five hundred dollars, or by imprisonment of ninety days, or both such fine and imprisonment in the discretion of the court.

It is needless to make any comments on the effects that such a law as this would have upon the public and upon physicians who have been accustomed to dispense their own medicines. Not only does it deprive the physician of the right of assuring himself that the patient is receiving drugs of proper strength and potency by providing them himself, but it even prevents him from directing patients as to where they may obtain dependable drugs. It is more than likely that were such measures as this devised for the purpose of destroying homœopathy, they would prove a boomerang on the old school itself. It is difficult, however, to set limits upon the actions of those whose minds are governed by prejudice and it behooves homœopathic practitioners to keep a close eye on legislative enactments bearing on this matter.

THE "DISCOVERY" OF CROTALUS HORRIDUS BY THE OLD SCHOOL.

THE student of homœopathic literature who reads the current medical journals of the old school finds himself puzzled at times in deciding whether the writers of certain articles are to be classed as fools, humorists or knaves. For in what other class can we place a man who gravely announces that *he* has discovered some "new" fact or theory which we know was discovered, tested and advocated by another physician fifty or more years ago and which has been daily utilized ever since by thousands of scientific physicians all over the world!

Take, for example, the address of Dr. Howard M. Fussell before the Section on Pharmacology and Therapeutics of the American Medical Association at Chicago, which we commented upon editorially in the October issue of the *HAHNEMANNIAN MONTHLY*. In this address Dr. Fussell laid great emphasis on two points, first, the importance, as far as possible, of administering a single remedy, and secondly, the necessity of adapting the remedy to the special indications present in the individual case. It is but fair to Dr. Fussell to state that he did not claim to have originated these ideas, which he seemed to feel would be rather novel to his audience, but rather credited it to Waring who wrote in 1866. The homœopathic origin of these views is so patent to everyone who has the least knowledge of medical literature, that it seemed hardly credible that Dr. Fussell, who is a physician of high professional standing and an instructor in one of our greatest medical schools, could be ignorant of this fact. If, however, he did not give the credit to Hahnemann because of ignorance it must have been either through prejudice or through fear of offending his professional colleagues. As we had publicly pointed out the inconsistency of Dr. Fussell's remarks we felt that he should, in fairness, be given the opportunity to defend his position. A copy of the comments on his address was accordingly forwarded to him and the pages of the *HAHNEMANNIAN* were opened to him for reply. Dr. Fussell then requested that we should furnish him with the references to homœopathic literature in which the principles he advocated were set forth. Numerous references and quotations from the *Organon* were furnished him, in which not only his ideas, but almost his very words were duplicated. Six months have elapsed since our communication with Dr. Fus-

sell and as yet we have received no reply. We infer that he has none to make; at least none that would reflect credit on that branch of the profession with which he is affiliated.

The latest homœopathic remedy that old school have "discovered" is crotalus, Dr. Thomas J. Mays, of Philadelphia, in *The Boston Medical and Surgical Journal* of April 15th, states that he has been using the venom of the rattlesnake in far advanced cases of phthisis for about one year with excellent results. Dr. Mays exhibits a becoming modesty in presenting this "new" remedy to the profession and says: "No effort is made here to illustrate the behavior of a new remedy in a large number of cases, nor with the object of advocating the permanency of its effects, for neither could be demonstrated in the short period of one year over which this investigation extends, but chiefly for the purpose of illustrating its prompt and hitherto unobserved influence in some far and very far advanced cases of phthisis and other pulmonary disorders, as well as in some important chronic diseases of the nervous system."

The writer then presents a series of thirty-two cases in which he has employed the crotalus venom with beneficial effects. The report contains fifteen cases of advanced pulmonary tuberculosis, three cases of bronchitis, six of asthma, two of pneumonia, two of pleurisy, one of hoarseness and dyspnoea, two of neuralgia and one of sclerosis of the cord. Dr. Mays recommends the administration of crotalus venom in doses of 1-200 to 1-100 gr. hypodermically once or twice a week. He also advises its administration by mouth in slightly larger doses. The results he reports in many instances are certainly most excellent and are all the more important because the remedy seemed to act favorably in very advanced cases of phthisis after all other medicinal and hygienic measures had failed.

We have no doubt but that Dr. Mays will be amazed to learn that what he terms a "new remedy" is really a very old one, and that had he consulted the very valuable and accurate provings of this remedy made by the earlier homœopaths he would have been able to utilize the crotalus venom much more effectively and more scientifically. It will be observed that his empirical experiments lead him to comprehend only a very small portion of the field of usefulness of this remedy and that his ideas of its proper indications are very vague and indefinite. For example, speaking of the group of cases in which it is most valuable he says "some far and very far advanced cases of

phthisis and other pulmonary disorders, as well as in some chronic diseases of the nervous system." A resumé of his report shows that the cases he refers to as "far and very far advanced phthisis" exhibited such symptoms as fever, emaciation, profuse sweats, breaking down of lung tissue with bloody expectoration and cavity formation, and gastro-intestinal disturbances. He also refers in his report to the usefulness of the remedy in asthma and hoarseness with dyspnoea.

If we turn to the provings of *Crotalus* venom in Allen's Encyclopedia of the Materia Medica we find under the respiratory sphere the following symptoms: *Hoarseness with weak, rough voice; difficult respiration; dyspnoea with symptoms of inflammation of the lungs and intestines; spitting of blood; cough with expectoration of bloody mucous.* Under the general symptoms we find: *hemorrhages from all portions of the body; great debility and loss of strength; paralysis of one side; chills followed by fever with thirst, hiccough, vomiting of bile, anxiety, weak, rapid pulse, exhaustion and rapid loss of strength.* Time does not permit us to give in detail all the numerous signs and symptoms that have been observed as the result of the accidental and experimental administration of the *Crotalus* poison. Enough have been quoted to show that *Crotalus* is entirely homeopathic to the conditions in which Dr. Mays has found it useful. Furthermore, if he will study the interesting and instructive writings on this subject by Hering, Neidhard and others, he will find that its usefulness is by no means confined to the few conditions to which he refers but that it is a valuable remedy in yellow fever, septicemia, adynamic fevers with hemorrhagic tendencies, and gangrenous conditions dependent upon vitiated states of the blood in which its characteristic symptoms are present.

In closing we cannot refrain from commending Dr. Mays for the instructive report of clinical cases that he has given the profession. Not that his work entitles him to any credit as the original discoverer of the therapeutic use of *Crotalus* venom, but because his results and conclusions emphasize the worth of the work carried on by the early pioneers of homeopathy and add further confirmation to the truth of the homeopathic principle of drug selection.

GLEANINGS

INTRAVENOUS BICHLORID INJECTION IN ACUTE ARTICULAR RHEUMATISM.—In the *Gazetta degli Ospedali*, 1908, No. 98, Ortali cites three cases in which salicyl treatment was of no avail, but where the intravenous injection of sublimate in doses between 5-10 mg. gave astonishing results. Three or four injections in each case sufficed, reducing the fever, local phenomena, and even grave cardiac complications immediately, as if the action was specific. The bacteriologic etiology of the disease has not been sufficiently worked out, but the infection does not appear unitary in nature.

Ortali is inclined to ascribe to the remedy rather an antitoxic than an antibacterial action, and emphasizes this treatment, introduced by the clinician, Baccelli, not only in syphilis, but in all septicemic processes, such as puerperal fever, anthrax, etc., in all of which no dangerous sequelæ have been noted.

THE ENDOTOXIN OF PERTUSSIS.—Bordet and Gengon (*Journal Medical de Bruxelles*, Sept. 3, 1908), have endeavored to isolate the endotoxin of the pertussis bacillus with a view to immunization. By endotoxin they mean the difficulty diffusible toxin bound to the bacillary body. Bordet had previously noted in intraperitoneal infection with the typhoid bacillus that the intoxication was due rather to a poison developing from the dead bacterial body than to the true endotoxin. It is, therefore, essential in immunization to utilize exclusively an endotoxin solution absolutely free of bacterial bodies, $\frac{1}{4}$ cc. of which was fatal when intraperitoneally injected into a guinea pig. Subcutaneously it produced extensive dermal ulceration and necrosis and comparatively few general symptoms. These facts coincide with the authors' previous communications: The bacillus of pertussis secretes an extremely irritant toxin whose local action upon the mucosæ produces the violent attacks of coughing. Chloroform, tolnol and thymol lessen its action.

DEGENERATION OF MANKIND.—In the *Zentralblatt für Nervenheilkunde und Psychiatrie*, 1908, No. 20, Prof. Krafrelin notes in many conditions of society the well-defined insignia of commencing degeneration of the species. In Prussia, for example, the percentage of asylum insane has, during the period 1875-1900, risen from 5.7 to 16.9 per 10,000. In savage or barbarous races psychoses are rare. He considers syphilis and alcohol the chief destructive factors, causing direct individual injury, developing paralyzes, epilepsy and dyspomania, but doing greater harm indirectly through their action upon the cellular elements whereby family or racial degeneration is engendered. In this respect the neurologic proof of leuitic taint will probably develop much material hitherto not cognized. The number of weak-minded individuals, epileptic, psychopaths, criminals, prostitutes and vagrants, descendants of alcoholized and syphilitic progenitors, and which continue a degenerate propagation, is appalling. Then, too,

there are other genetic factors in civilized society calculated to injure progressively our mental health. The demands of civilization rob us of our freedom with their protean duties and cares, their augmentation of the grueling sense of responsibility, and thus there develop certain symptoms of degeneration-psychosis: The phobias, the fear of the future, doubts and broodings, all of which are foreign to races living close to nature or to the lower classes of society.

The widening gulf between nature and ourselves shows in a loss of virility, stamina, whereof diminished longevity, decrease in child-bearing, early death of children are consequences. The results of proletarian existence in the large cities are embitterment and loss of vital energy. A hypercultivation of the mind, together with neglect of the body vitiate our existence, and natural impulses, e. g., independence, self-support, weaken, and the suicide, almost unknown where life is lived naturally, appears on the scene. Sleep and appetite diminish, and the artificial stimulus must be resorted to. Later, the birth rate decreases and sexual perversities increase. All of these cultural influences injure, not alone the individual, but the race. The well known instance of the Jews with their marked disposition to nervous and psychic disease, teaches that a peculiarly extended civilized life has left its mark upon the race.

The battle against these degenerate influences and processes is to be carried on both by the individual and the State.

PINEAPPLE AS A MEDICINE.—The medical value of pineapples has recently been the subject of considerable inquiry among physicians, and in Hawaii experiments have been made to determine something of these properties. It has been found that the fruit of the pineapple contains a digestive principle closely resembling pepsin in its action, and to this is probably due the beneficial results of the use of the fruit in certain forms of dyspepsia. On the casein of milk pineapple juice acts as a digestive in almost the same manner as rennet, and the action is also well illustrated by placing a thin piece of uncooked beef between two slices of fresh pineapple, where in the course of a few hours its character is completely changed.

In diphtheritic sore throat and croup pineapple juice has come to be very largely relied upon in countries where the fruit is common. The false membranes which cause the closing of the throat seem to be dissolved by the fruit acids, and relief is almost immediate.—*Southern California Practitioner*, January, 1909.

THE TREATMENT OF BURNS.—The treatment of burns I find should be varied not only for the degree and extent of the burn, but also to the patient's surroundings. A treatment eminently adapted for use in a hospital or where a trained nurse is in attendance would probably be poorly suited for routine home treatment. Most cases where the surroundings will permit I dress with sterile gauze and cotton moistened with slightly carbolated sterilized water. This I have the attendant moisten occasionally with the same solution without removing the dressing. The next day the old dressings are removed and new ones applied in the same manner. When the dead tissue clears off the burns are dressed with the following ointment:

Bismuth subnitrate	drs. 2
Ointment of zinc oxide	ozs. 2
Carbolated vaseline	ozs. 2
Alboline, enough to make	ozs. 5

This is spread on closely woven cloth. An old sterilized bedsheet will do very well; gauze has too large meshes for this purpose. After washing the burns these cloths are applied and overlaid with a layer of absorbent cotton. These dressings are renewed once daily until the wounds are healed. They can be removed without pain for they do not adhere to the surface and there is no residue of the ointment left on the surface.

In some cases I lessen the amount of zinc ointment or increase the alboline. Often I use the ointment alone throughout the whole case. I have employed this for several years and found it very satisfactory.

I believe the bismuth is a very important factor in this application both as to the comfort of the patient and the rapidity with which the burns heal. Since it has been found that old sinuses heal up when filled with bismuth, I am more convinced than ever of its importance in this treatment.

Allow me to cite one case: A workingman fell up to his knee into a vat of boiling acid water used for cleansing pipes prior to coating. Considerable of the skin had been stripped off with the removal of the clothing. During the first day I dressed with sterilized water to which a little sodium bicarbonate had been added. Thereafter the treatment was as described above. In three weeks the entire leg was healed over with practically normal skin. About the end of the first week a surgeon was called in by the owner of the factory who, unknown to me, removed the dressings and inspected the leg and gave as his opinion that skin grafting would be necessary, and if those should prove unsuccessful the leg would have to be amputated. As the patient objected to either of these proceedings I was left in peaceful possession of the case.—John C. Kamp, M. D., *Amer. Jour. of Clinical Medicine*.

ATOXYL IN TERTIARY SYPHILIS.—Babesch (*Spitalul*, No. 3, 1908). According to the author, atoxyl is positively a specific remedy in tertiary syphilis, where it acts better and more rapidly than mercury. Deep-seated gummatous processes are healed by atoxyl alone, without other medication. In the other stages of syphilis atoxyl is also a useful remedy, but it must not be employed in combination with mercury, for otherwise the atoxyl undergoes decomposition in the body and may give rise to the symptoms of intoxication. The author employed atoxyl in daily intramuscular or subcutaneous injections, 0.2 at a dose. The treatment was temporarily interrupted whenever the symptoms of intolerance became manifest.

In a general way it may be said that atoxyl influences all syphilitic phenomena. The effect is a direct and specific one, but varies in degree according to the different stages of the disease. It is strongest in tertiary syphilis, where it generally results in a cure, and likewise noteworthy in lues maligna præcox.—*Med. Review of Reviews*.

FRONTAL SINUS DISEASE.—Eugene A. Crockett (*Boston Medical and Surgical Journal*, January 28, 1909) discusses what type of operation or

treatment is best adapted for the relief of disease of the frontal sinus, and comes to the following conclusions, which are of interest to oculists who believe otital cellulitis to be so often due to infection from that local source:

1. In acute frontal infections, in mild cases, the use of the ice-bag over the sinus and an adrenalin spray is all that is necessary. In severer cases the patient should in addition be anæsthetized and the middle turbinate, or at least the anterior portion, removed. This should not be attempted without anæsthesia, as it is extremely painful under cocaine. The nose should not be packed.

2. In chronic disease of the frontal sinus and in all cases where the infection involves merely the frontal sinus and anterior ethmoidal region, with perhaps the antrum of Highmore filled with pus by drainage, the simple type of operation should be performed, the antrum being, in addition, opened with a trocar and washed out at the time of operation. The best trocar for this is, perhaps, the hollow one devised by Dr. Tobey, of the Massachusetts Eye and Ear Infirmary, by which you can, with the same instrument, puncture the antrum and wash it out at one process.

In chronic cases, where the frontal sinus disease is accompanied by an orbital abscess and where the infection is through the floor of the sinus, the same operative procedure will be the best, combined with a simple opening of the orbital swelling. In all cases where there is caries of the ethmoidal plate of the orbit, or the sphenoidal sinus or posterior ethmoidal region.

THE PRESENCE OF TUBERCLE BACILLI IN THE BLOOD.—Rosenberger (*The American Journal of the Medical Sciences*, February, 1909) states it as his belief that tuberculous disease in all its forms is a bacteriæmia, and offers as proof the fact that in every one of 50 cases tested he has been able to demonstrate the bacillus in the circulating blood. In only one instance was any other pathogenic organism found; consequently he considers that mixed infections are much less common than most of us have hitherto believed. Of his cases 5 had been diagnosticated as acute miliary tuberculosis, 2 as fibroid tuberculosis, 1 as pneumothorax, 15 as incipient tuberculosis, 23 as moderately advanced tuberculosis, and 3 as laryngeal tuberculosis. In all these patients the bacillus was demonstrated; sometimes but few were seen, but usually large numbers were found; clumps of 30 to 40 bacilli were not unusual.

The technique is as follows: Under aseptic precautions 5 cc. of blood are taken from a vein of the arm. This is at once placed in an equal amount of 2 per cent. sodium citrate in normal (0.9 per cent.) salt solution. The mixture is well shaken and placed in a refrigerator for 24 hours. At the end of this time a quantity of the sediment is pipetted off and a rather thick smear is made on a glass slide. This is dried by moderate heat and the slide is placed in distilled water until complete laking of the blood is resulted. The slide is then stained by the usual technique for tubercle bacilli. The organisms as a rule were found in the first slide, but in several cases three slides were thoroughly searched before any were demonstrated.

It would seem that if the author's results are confirmed by other compe-

tent observers, we might have in this method a distinct advance in the diagnosis of incipient tuberculosis.—*Med. Rev. of Reviews.*

CARBOLIC ACID AND ALCOHOL IN ERYSIPELAS.—Judd (*Medical Record*) advocates, as follows, the carbolic acid and alcohol in erysipelas:

The technique consists of painting with a swab of cotton the entire surface of the involved area, and extending about a half inch into the surrounding apparently healthy skin, with a 9 per cent. carbolic solution. This is left until the purplish color of the inflamed area is replaced by a pretty complete whitening of the skin. It is essential to the success of the procedure that we await this whitening before we proceed to the next step in the operation. On the other hand, if we allow the whitening to proceed to a thorough blanching, we shall produce a burn and a slough of the skin, which will prove painful to our patient and add nothing to the efficacy. Where we have large areas involved it is advisable that only a portion be painted at a time. The second step consists in going over the whitened area very thoroughly with a second swab saturated with pure alcohol. If this swabbing is done thoroughly, the whitened area becomes once more pink, and the alcohol must be laid on until this is accomplished. After this we proceed with other areas with the carbolic, neutralizing with alcohol, until our operation is complete. It is essential that we should include a half inch of the apparently sound skin, as the bacteria of erysipelas are found beyond the apparently involved area. In some of our first cases treated we neglected this precaution, and found in 24 hours that, while we had completely controlled the initially inflamed area, a ring of newly inflamed tissue extended out in all directions beyond, much as an advancing ringworm extends. Our method includes the painting of the hairy scalp, the eyelids, the mucous membrane of the alæ of the nose, and the nipple of the breast, if necessary. We have failed to note any evil result from its use. There has been no toxication of the carbolic in any case so far observed, although the urine is sometimes darkened and of characteristic odor. The temperature rapidly falls, and in severe cases it is frequently necessary to support the patient with stimulation of strychnine and whiskey.

POKE BERRY POISONING.—By Frederick W. Lester, M. D. As personal experiences are generally interesting to those practicing the healing art, I will describe briefly a recent experience in treating a case of poke berry poisoning. This plant, in the autumn, in country districts, has just reached maturity, and the berries being of a dark purple color and filled with juice, attract the eye and suggest a lusciousness which is rather deceptive to the average boy. The poke or poke weed, *Phytolacca decandra*, sometimes called skoke, pigeon berry, ink berry, garget, poke root, American nightshade, etc., depends for its activity upon an alkaloid, phytolaccin, which is stated to be a motor depressant, and to have emetic and also cathartic properties. The symptoms displayed by my patient, a negro boy of twelve, would bear out at least a part of the action stated. I was called in the evening at about 8:30 to see the boy, who was being bathed in hot water by an excited gathering of neighbors. Several of the most coherent among them stated that he had had a convulsive working of his arms and legs,

which they had attributed to "worm fits," and treated accordingly by means of turpentine applied externally over breast and throat. When I examined the boy he was as completely relaxed in his muscular system as if under full anesthesia. One could have literally tied him in a knot. He was breathing very shallowly and quietly, so that one could hardly detect any respiratory sounds or motions unless he approached to within a foot of the patient. His pulse was soft, full and slow, about 60, regular and not the pulse of collapse. He salivated freely from his mouth, there being a constant rising of thick, frothy saliva. His reflexes were gone, the eye bearing the touch of finger without any lid contraction. In the absence of any history of poisoning, I began to endeavor to administer some stimulants, and with use of warm water obtained free emesis, which determined the nature of the patient's seizure, being largely composed of the poke berries. The use of liberal doses of castor oil at short intervals was persisted in for some hours, the patient becoming gradually better, until consciousness was regained nine and one-half hours after the initial attack. The whole picture was one of motor relaxation. There was even evidence of this in the widely open pupil, hanging jaw, tongue settled back in the pharynx and inability to swallow for an hour. Yawning and stretching became evident as patient became better, but no sweating of body nor tremor was present.—*N. Y. State Journ. of Medicine.*

EXPECTANT TREATMENT OF APPENDICITIS.—Sir George Thomas Beatson, surgeon to the Glasgow Infirmary, says he has employed the expectant medicinal treatment for appendicitis for ten years and has no fatal cases following it. If the pus was not absorbed or evacuated externally, it opened into the cecum or rectum, and the results have been quite satisfactory. His treatment consists in preventing peristalsis by the use of Dover's powder, $2\frac{1}{2}$ to 5 grains given every two to four hours. Bismuth and gray powder are used if needed, and the rectal tube is employed to carry off flatus. The gray powder is not given for any laxative effect but as an intestinal antiseptic. The large intestine is emptied by soap and water enemata, but he does not aim at colonic lavage. Locally he uses light hot poultices. The food is restricted to small quantities of albumen water.—*Therapeutic Medicine.*

MEDICAL TREATMENT OF APPENDICITIS.—Pfister reports (*Medical Record*) seventy cases of appendicitis treated expectantly in the medical department of the University Hospital of Heidelberg, during the past two years. These included thirty of slight severity, twenty-five of medium gravity and fifteen serious cases. All the patients were discharged free from symptoms, except one, who died after transfer to the surgical side; although, as there was delay in operating after the transfer had been made, the death cannot be charged to the medical treatment. All but strictly surgical cases where peritonitis is suspected should be treated, according to Pfister, with opium and the ice-bag. A better way is to secure perfect rest in bed, thorough emptying of the lower bowel with hot colonic flushings, saline laxatives if the patient is seen at the beginning of the attack, hyoscyamine to full physiologic effect, aconitine if fever, glonoin and strychnine arsenate if shock.

PERMEABILITY OF THE NEGRO-SKIN TO X-RAYS.—Dr. Horand has studied the penetration of the X-rays by comparing the radiology of the white and the negro. The radiographic experiment took place on the same day, at the same hour, with the same apparatus, and with the same intensity of current. Crooke's tubes were the same.

The results were admirable. The bones of the negro could be seen very distinct on the plate, and the soft parts themselves were well designed, particularly so on gelatine. On paper the smallest details of the bone structure were admirably portrayed. The soft parts of the hand, hardly perceptible in the white, were plainly traced out in the negro, both in the plate and in the copy. The *negro-pigment* then, did no doubt, act as a screen against the X-rays and thus were photographed. By holding the *radiographies* before any one, there will be no difficulty in telling which hand belongs to the negro and which to the white. The darker of the two belongs to the negro.—*Soc. des Sciences Medicales de Lyon.*

P. W. SHEDD, M. D.

SCROFULOSIS.—H. Escherich, in the *Wiener Klinische Wochenschrift*, 1909, No. 7, defines the modern acceptation of the term "Scrofulosis" as follows: Before the first sign of the disease, as well as later during its continuance, there exists the constitutional anomaly known as the status lymphaticus. After infection with tuberculosis, there develops an encapsulated tuberculous focus, generally without external symptoms, then an allergic state with especial receptivity and hypersensitivity to exterior noxæ, and particularly to the smallest quantity of tuberculoxin, which are, perhaps, present in the secretions. Then develop the pathognomic catarrhs of the body surfaces, "scrofulides" and further, via the lymph or blood channel, the metastatic vacillary foci of a localized or general tuberculosis. Scrofulosis is naught else than the tuberculosis of childhood, with its tendency to superficial catarrhs, developing in the lymphatic constitution.

P. W. SHEDD, M. D.

THE VARIOUS FORMS OF PUERPERAL MASTITIS AND THEIR TREATMENT.—In the *Deutsche Zeitschrift für Chirurgie*, Bd. 94, Hefte, 3-4, Dr. Feinen differentiates the treatment of the condition according to the form of mastitis. In recent cases, more often treated by the gynecologist than by the surgeon; antiphlogistic treatment, with mechanical and functional rest of the organ suffices; the child is weaned, the milk is not drawn off, and the breast is fixed with moist compresses. The simple cases heal in two or four days. For the circumscribed mammary abscess, the punctural incision and Bier's suction treatment answer well, and the breast heals in four to twelve days. In interstitial or parenchymatous mastitis Bardenheuer's method is indicated. The breast is raised up by a curved incision along its lower border. The morbid parenchyma laid bare and the necrotic tissue removed entirely, followed by drainage of the cavity. This method gives the best cosmetic results, as the single scar is hid by the pendant breast. For the gravest form of mastitis, the gangrenous, the experience of the author leads him to commend the removal of the part affected, whilst in tuberculous mastitis the ablatio mammæ is necessary.

P. W. SHEDD, M. D.

CONSTITUTIONAL ECZEMA IN CHILDREN.—Geissler in the *Munchener med. Wochenschrift*, contributes some interesting data on what Czerny calls the "exudative diathesis," comprising exudative phenomena, common on the skin and mucosæ, *e. g.*, mapped tongue, seborrhea, crustea lactea, prurigo and various irritated conditions of the mucosal membranes, particularly of the respiratory, leading to facile infection. To the above should be added the constitutional eczema, commonest on the face and head, and notable for its chronicity, tendency to relapse, and alternation with chronic asthmatic catarrhs of the respiratory mucosæ, a syndrome which is a veritable crux medicorum. The treatment pursued successfully by Geissler is practically dietetic and its characteristic is the absolute elimination of salt. Curiously, a popular name for the condition is "salt rheum," and the results obtained by the exclusion of sodium chloride seem to justify the term. In the case of a child æt. 6, the dietary was: $\frac{1}{2}$ liter of milk (1-4-1-5 cream), zwieback, 2 eggs, 200 grams of vegetables, 70 grams of meat, about 40 g. of butter and cheese.

P. W. SHEDD, M. D.

THE ACTION OF THE RESPIRATORY CILIA.—In the *Deutsches Archiv für Klinische Medizin*, B. 94, H. 3-4, Lommel gives the results of investigations into the physiology and pathology of the respiratory ciliated epithelia as, normally, not alone a secondary aid in keeping the mucosa clean, but actually the chief agent in such cleansing. These minute cilia move not only the normally present tenuous layer of mucus outwards, but even lumps of mucus and blood coagula, the size of a pea are rapidly pushed to the larynx. Inhalation narcosis (ether, chloroform), does not hinder the ciliary activity, and hence, the narcosis pneumonias are due rather to vascular unbalance, increased production of mucus, with lessened cough activity, bacterial emboli, etc. In acute, experimental tracheitis and bronchitis, the mucus current outwards was slowed, but this is attributed to increased production and not to inactivity of the ciliated cells. The vascular supply and active nutrition of these cells are evidently destined for rapid restoration of equilibrium in disturbances of the respiratory tract. Exposure to cold, X-ray, nervous influences (section of the vagus) had no perceptible action upon the cilia, nor did intoxication with morphia or iodine, but acute alcoholic intoxication materially abrogated their functional activity, sometimes completely paralyzing them, a fact, possibly of much significance in the frequent pulmonary and bronchial troubles of the habitual drinker.

P. W. SHEDD, M. D.

ADRENALIN CARDIAC HYPERTROPHY.—Miesovicz in the *Wiener Klin. Wochenschrift*, 1909, No. 3, gives the results of his study in rabbits of the relation between the intravenous injection of adrenalin and the sequent cardiac hypertrophy and anatomic changes in the structure of the aorta. He shows that even without aortic changes, a very distinct hypertrophy of the heart may be developed. The degree of hypertrophy does not appear to be due directly to the number or size of the injections, for it may appear after minimal dosage, and is, therefore, attributable to a permanent and direct action of the adrenalin upon cardiac muscle, and consequently upon blood pressure, which augments.

P. W. SHEDD, M. D.

THE PROTECTIVE FUNCTION OF THE PERITONEUM.—Whilst formerly the peritoneum, for the surgeon, was a mysterious incubator for hostile micro-organisms, we know, nowadays, its protective powers against bacterial infection, powers to be utilized and reinforced by the surgeon. By moist compresses, Witzel (*Munch. med. Woch.*, 1909, No. 6), separates the operative field from the healthy tissues.

"Bipartitis cavi abdominis," and after operation, emphasizes the least possible disturbance of tissues and organs. The fluids should be increased, particularly by subcutaneous infusion of normal salt solution, and to stimulate cardiac action, nourishment should be given which increases peristalsis. The final step in operative procedure, the tampon or drain, should be most carefully used, avoiding all possible tissue injury. The Mikulicz tampon is changed by using 3 or more thick glass tubes, ending in bulbs numerous perforated, which are inserted into the peritoneal sac cavities in place of gauze. Enforced rest of the organs, *e. g.*, the stomach, after operation, is wrong, and eventually dangerous; after coming out of the narcosis, the normal functioning of the parts should be helped rather than hindered. The use of warmth, partial electric baths, breathing exercises immediately after operations, are most emphatically commended.

P. W. SHEDD, M. D.

EARLY RISING FROM CHILD-BED.—K. Mayer (*Munch. med. Wochenschrift*, 1909, No. 6), with 300 cases from the Marburger Woman's Clinic, insists, as has been often done recently, on the early rising after delivery. In his cases, it was left to the patient to get up and about when she liked, though none evinced any desire to do this the first or second day. As to the disadvantage or danger of the procedure, Mayer says: "Because marked antelexion of the uterus, caused by early rising, lochial stasis may develop; also, by the bodily exercise, germs may enter the unhealed tears, and thus cause constitutional disturbances, but these possibilities do not contraindicate the early rising, for they are not excluded by a 10-days sojourn in bed." The early rising has definite advantages: marked diminution in the morbid statistics, thrombosis or emboli never occurring; favorable influencing of lactation; earlier ability to work. *In toto*, the getting out after a few days' rest is recommended.

P. W. SHEDD, M. D.

THE TREATMENT OF GONORRHEA.—There are certain fundamental principles of treatment universally recognized as desirable. Among these are a fair amount of bodily rest during the acute stage, a bland condition of the urine secured by great moderation in diet and the ingestion of large quantities of water, the avoidance of sexual excitement and of alcohol. Many practitioners now believe that there need be struck from the diet none of the wholesome articles ordinarily taken, such, for instance, as red meat, but that the food should be taken in very limited quantities, should be chewed thoroughly, and should be selected with due regard to the idiosyncrasy of the individual stomach. Regularity of the bowels and the avoidance of chilling are also regarded as of prime importance.

As to the use of medicaments, alkaline diuretics are almost universally accepted as serviceable, to the point of rendering the urine almost neutral.

Further, it is regarded as desirable that the patient should empty his bladder as soon as he experiences the desire to do so.

The moment the question as to the choice of drugs supposed to have a specific action arises, there is a wide divergency of opinion. Perhaps salol as a urinary antiseptic and urotropin receive the most universal acceptance. Of the balsams, sandalwood oil or its derivatives is undoubtedly the most efficient, copaiba following next in order, and cubebs being not only the most expensive but the least serviceable.

As to the local treatment, perhaps the most satisfactory paper which has appeared recently is that of French dealing with gonorrhea in the army (*Journal of the Royal Medical Corps*, November, 1908) and systematizing the results of an enormous experience. French states that he has tried in the past fifteen years most known methods amongst 5,000 in-patients. In the initial stage there is a tendency to dispense with chemical irrigations and injections in favor of more conservative methods, with the best results. His method adopted as a routine practice at Woolwich from 1905 to 1908 is as follows: For about seven to ten days the patients are put to bed on a milk or farinaceous diet with five pints of barley water, porridge and cocoa as extras. During this period free saline purgatives are administered every morning and an alkaline mixture containing potassium nitrate 1 ounce, potassium bicarbonate 10 drachms, tincture of hyoscyamus 10 drachms, and infusion of buchu 2 pints. No injections or irrigations are given. After ten days on an average the previously creamy, yellow, purulent discharge becomes thinner, whiter, and muco-purulent. The patient is then allowed to get out of bed and is given a convalescent diet. When the two-glass test shows that the inflammation is both anterior and posterior, irrigation is usually not practiced for four weeks, and is at once discontinued if the posterior symptoms become suddenly acute. Anterior irrigations commence on the average case about the sixth day, a pint at a time being applied two or three times daily. The posterior irrigations are used never more than once a day, preferably in the morning. It is usual in posterior cases to give a second interior irrigation in the afternoon. A solution of permanganate of potash 2 grains to the ounce, and one ounce of this to every pint of lukewarm water (98° F.), is ordinarily used as an irrigation. The strength is gradually increased. The pressure is about 8 feet and a double-channel irrigating nozzle employed. After the urethral discharge has ceased, the urine, as evidenced in the urine glasses, gradually becomes clear, and threads, in average cases, are no longer visible after six weeks. The man is then placed on beer for three days, when if the urine still remains clear and the gonococcus is not demonstrated with the microscope, he is dismissed from the hospital when ten to fourteen days free from suppuration; but never under six to seven weeks if admitted with acute gonorrhea.—*Therap. Gazette*.

TREATMENT OF MOVABLE KIDNEY.—Dr. A. B. Bevan, in discussing the present status of kidney surgery (*Ind. Med. Jour.*, January, 1909) points out that in 30 per cent. or more of women who come to us for a general physical examination the right kidney is so movable that the entire organ can be palpated. This condition is so common and so seldom gives rise to symptoms that it cannot be regarded as pathological. In spite of this

fact, however, many of these cases are improperly subjected to an operation to fix the kidney and cure the patient of a great train of vague symptoms which have been attributed to these slightly movable kidneys. Experience has shown, however, that these symptoms persist after these operations, proving that they had nothing to do with the condition. Again, operations have been too often done to fix one or both kidneys in cases where the movability of the kidneys was but one of the evidences of a general visceroptosis. Here kidney fixation does more harm than good. The operation of nephropexy, or nephrorrhaphy, is an operation of distinct value in a limited number of cases. These are cases of extreme mobility with definite symptoms, such as Dietl's crises, due to temporary obstruction of the ureter, or distinct pain and distress which can be clearly traced to the misplacement of the organ. The operation of choice is the partial decapsulation and stitching of the capsule flaps to the edges of the wound, so that they become incorporated in the posterior linear scar as in Tuffier's operation. In well-handled surgical clinics to-day the operation for kidney fixation is seldom done, and then only in well-selected cases.—*Internal. Jour. of Surgery.*

ALIMENTARY INTOXICATION IN CHILDREN.—H. Finklestein, (*Jahrb. ur Kinderhk.*, Nov. 7, 1908, p. 521). All the numerous clinical forms of disturbances of nutrition belong to one or the other of two fundamental types, namely, alimentary decomposition or alimentary intoxication. The former term is one employed by the author to express a condition which is usually designated as infantile atrophy. The condition has the following course: As a result of improper diet, a disturbance of nutrition occurs which leads to a chemical change in the constitution of the body and more particularly of the cells concerned with the functions of nutrition; this in turn produces a further disturbance of these functions and reduction in the tolerance for food; dyspeptic disturbances develop, and finally a condition sets in, in which the food instead of supplying nourishment to the body acts as a toxic material. The underlying basis of this condition is a reduction in the tolerance for food. The chief etiologic element is the fat in food. Starches and sugar have less influence in the development of this serious condition, while the proteids seem to play no role whatsoever. At any time during the existence of alimentary decomposition intoxication may set in. The latter occurs as a complication of the former, when more carbohydrates are ingested than can be taken care of by the cells of the body. Fats do not produce intoxication directly, but their influence in the production of decomposition and the consequent reduction of tolerance leads indirectly to the more ready occurrence of intoxication when carbohydrates are ingested.

Decomposition proper is always preceded by two precursory stages. These give distinct clinical pictures, but are of variable duration and severity. The first stage is that of disturbance of weight equilibrium of the body. The body temperature shows slight fluctuation, being either subnormal or subfebrile. At first the body weight shows only slight variations; somewhat later we find a gradual cessation of increase of weight. The body no longer reacts with normal increase in weight when the food is increased. The second precursory stage is that of dyspepsia. In this

stage, in addition to the symptoms of the preceding one, we see the manifestation of the food in the alimentary canal. The stools vary in character, but are always abnormal. Most of the symptoms are due to the carbohydrates in the food.

The stage of decomposition proper sets in with a marked and continuous loss of weight. The child becomes irritable, sleep is disturbed, and hunger seems to be a constantly present symptom. Pallor of the skin becomes marked, and is contrasted with the redness of the mucous membranes. The pulse becomes smaller and slower. The respirations are irregular and the expiration slow. In severe cases we have periods of apnea and Cheyne-Stokes breathing. The temperature is frequently subnormal. With the exception of the marked loss of body weight these symptoms contrast markedly with those seen in alimentary intoxication. In the latter condition we have drowsiness, stupor, rapid pulse, rapid respirations, albuminuria and glycosuria.

Death may occur suddenly from cardiac collapse or respiratory paralysis.

The author divides the stage of decomposition into three periods.

In the first period restriction of diet results in weight equilibrium and marked improvement in the character of the stools after three to six days. Recovery is possible even with artificial feeding.

In the second period weight equilibrium is attained more slowly and after greater restriction of food; the abnormal stools are more persistent. Relapses readily occur when a more liberal diet is given. Recovery with artificial feeding is not likely.

In the third period weight equilibrium is no longer attainable. The stools remain abnormal, and death within a short time is certain. Every child who on attaining weight equilibrium does not show rapid improvement when the former diet is resumed, should be put to the breast, otherwise death or inanition is certain to occur. Breast milk acts as a curative agent in all but the last periods of decomposition. Even in human milk the fats and carbohydrates are injurious to the organism in the stage of decomposition, but their harmfulness is counterbalanced by some unknown constituent of the whey which produces an increase of tolerance for these elements of the milk. In severe cases breast feeding must therefore be begun with minimum quantities.

At any stage, decomposition may be complicated by alimentary intoxication, the first symptom of which is fever. This complication is usually brought on by the ingestion of carbohydrates, as is shown by the rapid disappearance of the symptoms when the latter is excluded from the diet. Digestive disturbance must be present for intoxication to occur. The amount of sugar necessary for the production of intoxication is of diagnostic and prognostic value.—*Henry Heiman.*

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY A. LEIGHT MONROE, M. D., MIAMI, FLORIDA.

ACTEA RACEMOSA IN CHOREA.—Miss —, aged 13 years, plump, firm build, dark hair and skin, began menstruating at age of 12 years, irregular menses. She had a mild attack of muscular rheumatism at age of 10 years. Present symptoms included following: "Trembling of limbs so that she is scarcely able to walk; twitching of fingers and toes; uneasiness of arms and legs; tremors over entire body; nervous shuddering over upper and lower back part of body; jerking of muscles after going to bed; restlessness in bed causing frequent changes of position; sleeplessness." A slow but perfect recovery followed administration of *actea racemosa* 6. My case book shows that *actea racemosa* has been used in nearly half my cases of chorea. It has been used in 75% of the female cases.—Dr. Geo. Royal in the *Iowa Homoeopathic Journal*, April, 1909.

AGARICUS MUSCARIUS IN CHOREA.—Miss —, aged 10 years; slender, thin, light hair, neurotic temperament; her father died from effects of alcoholic indulgence. A few weeks after the sickness and death of her sister, the mother noticed: "Frequent twitchings in different parts of the body; twitching of the eyelids and rolling of the eyeballs when reading; twitching of the muscles of the face when talking; trembling of the tongue which she frequently protruded; speech slightly impaired; soreness and weakness of the neck and back; very sensitive to cold air. *Agaricus* 12th was given and the child put to bed for a week. A nourishing diet and hot fomentations to the spine were also prescribed. Recovery was rapid and permanent.—*Ibid*.

CUPRUM METALLICUM IN CHOREA.—Boy, aged 6 years, who has been healthy all his life till six months prior to the time I was called, when he contracted the measles. On the third day of the eruption it suddenly disappeared and the boy had a severe convulsion. Under treatment the eruption reappeared and ran the usual course, but the following group of symptoms developed, and grew worse. "Uneasiness, trembling, audible gurgling of fluids on swallowing, spasm of the abdominal muscles, jerking of the arms and hands, painful contraction of the legs and toes, weakness; staggering on walking." All of the above ceased during sleep. *Cuprum Met.* 30th four times daily with mild exercise in the open air cured in six weeks.—*Ibid*.

STRAMONIUM IN CHOREA.—Carrie E., light hair and skin, nervous temperament, has always been a poor sleeper. She had been very active and excited on the day previous to my first visit, and could not sleep the pre-

vicious night. I found: "Cannot talk at all at times, stammers at other times; tongue frequently protruded, ludicrous grimaces, inability to swallow water; no urine had been voided in 18 hours." The patient had suffered from an attack of chorea two years before which began in the same way. Stramonium 6th five drops every 2 hours for the first 48 hours, with hot water bottle over the region of the kidneys brought prompt relief. After the 48 hours the medicine was given twice daily. The patient was put to bed and company forbidden for 10 days. She was normal after 18 days.—*Ibid.*

IGNATIA IN CHOREA.—Miss A. H., age 16, dark hair and skin, slender, tall, of neurotic parents. Mother and grandmother both had chorea at age of puberty. The girl had failed to make good in her school work. I give the symptoms as they developed: "Became morose, twitching of the muscles about the corner of the mouth; constant agitation and jerking of the muscles of the arms. Urine light colored; specific gravity 1006, amount 6½ pints." Ignatia 30th cured in two weeks.—*Ibid.*

PICRIC ACID.—This is a typical brain-fag remedy with indifference and lack of will-power, aversion to talk, think or perform any mental exertion. He is quickly prostrated from the least mental work, and it brings on many complaints, such as soreness and lameness, diarrhœa, burning along the spine, general weakness and heaviness of the limbs and back. He loses interest in things; becomes irritable from any mental exertion. In young school children we have a common use for this very valuable but neglected remedy. When the child begins to learn the alphabet, headaches come, and return with every repeated effort, often with dilated pupils. After every examination in school come these violent headaches. A young man at school with the following symptoms was cured promptly; student's headache, vertigo when remaining standing, heaviness in the head, epistaxis, dilated pupils, congestion of conjunctivæ, inability to bear artificial light, loss of appetite, bitter taste, vomiting, jaundice.—I. T. Kent, in *Critique*.

PULSATILLA NASAL CATARRHS.—In nasal complaints it is indicated in the late stages of catarrhs when there is much muco purulent discharge, and when they are better in the open air, in this modality comparing with the catarrhs of allum capa euphasia and iodine.—Dr. Wheeler, in *British Homœopathic Review*.

CANCER-LIKE PROLIFERATION OF THE MUCOSA IN SALPINGITIS TUBERCULOSA.—Voigt, in *Beitrage zur Klinik der Tuberculose*, Bd. XI. H. 3, reports a case of tuberculous salpingitis where anatomic investigation showed peculiar proliferation of the mucosal epithelia, so that the solid epithelial cords surrounding the tuberculous nodes roused grave suspicion of a carcinomatous process, though destructive growth was not present. He attributes the epithelial proliferation to a probable chemico-toxic influence generated by the tubercle bacilli.

Comment. "The monstrous internal chronic infection-psora, which alone is the true cause and genesis of the many other, aye, innumerable forms of disease which under the names of neurasthenia, hysteria, hypochondriasis, mania, melancholia, idiocy, madness, epilepsy, convulsions of all sorts, rachitis, scoliosis, kyphosis, caries, carcinoma, etc., are listed as pathologic entities."—S. Hahnemann, 1810.

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

FRENCH POLYPHARMACY.—*The Treatment of the cough, hemoptysis, and dyspnœa of Pulmonary Tuberculosis*, by Dr. A. Robin, Paris.

1. COUGH.—The tuberculous should only cough to expectorate, otherwise the cough is useless and should be combated. A patient, schooled in his cough, will more readily repress the dry fits. Little by little, he will be able to resist the sensation of tickling that causes the cough, and he will cough less, without taking remedies.

Remedies do not become necessary, unless it is a case of cough requiring an emetic, or which disturb sleep. But before using any remedies it will be convenient to find out the origin of the cough.

A *nervous cough* should be combated by education or training, and by the administration of *Bromide of Potassium*, either locally or applied to the soft palate and pharynx, 30 per cent. solution, or in suppositories.

R. Bromide of Potassium, 1 to 2 grammes.

Cocoa Butter, 3 grammes.

For 1. suppository.

Or a potion:

R. Bromide of Potassium, 6 grammes.

Cherry-laurel Water, 10 grammes.

Ether Syrup, 30 grammes.

Hydrolate of Valerian, 120 grammes.

3 or 4 tablespoonfuls daily.

If the *cough is of pharyngeal origin* and the fauces are covered with mucus or irritated by the efforts of the cough, one should prescribe a gargle composed of:

R. Naphtol, O. gr. 20.

Perborate of Soda, 15 grammes.

Alcohol of Aconite Root, 1 gramme.

Hydrolate of Menthha, 200 grammes.

Boiling Water, 2 S. p. 1 litre.

External use.

One should besides order the painting of the pharynx 2 or 3 times a day with:

R. Hydrochlorate of Cocaine, O. gr. 25.

Distilled Water, 100 grammes.

External use.

Or:

Glycerole of Tannin, 1-10.

Or:

A borated collutory.

If the pharynx is covered with an exudate difficult to detach, paint every other day with:

- ℞. Resorcin, 1 gramme.
Hydrochlorate of Cocaine, O. gr. 10.
Pure Glycerin, 30 grammes.

External use.

Do we suspect that the *cough is of laryngeal origin*? Intro-buccal sprays of hot water to which a few drops of *gomenol* or of *eucalyptol* are added, will bring about satisfactory results. One can ever rely on the following mixture:

- ℞. Coca leaves, 5 grammes.
Tilia flowers, 2 grammes.
Steeped in water, 250 grammes.

Then add:

- Potassium Carbonate, 3 grammes.
Alcohol of Mentha, 5 drops...

Spray with mouth wide open, 2 or 3 times daily. This treatment should be followed by very hot applications or sinopisms to the throat and the administration of a sedative potion:

- ℞. Alcohol of Aconite root, XV drops.
Belladonna Tincture,
Bryonia Tincture, a. a., XII drops.
Bromide of Potassium, 6 grammes.
Hydrolate of Tilia, 150 grammes.

4 or 5 tablespoonsfull in 24 hours.

But if the *laryngitis* is truly *tuberculous*, the hot compresses or sinopisms may still do good, though such cases should be transferred to a specialist, who can make local applications of chromic acid, or better still, to avoid sub-acute œdemas, he can employ the *Balsam of Peru*.

If attended by *difficult expectoration* the cough should be treated with *gaseous drinks* or *inhalation of aromatic vapors*.

- ℞. Water, 100 grammes.
Glycerin, 15 grammes.
Tincture of Benzoin, 4 grammes.

Expectorants are also recommended, either the tablets of *Ipecac*, 3 to 6 daily, or the following powders:

- ℞. Dover's Powder,
Terpin Hydrate, a. a., 2 gr. 05.

For 1 powder or pill, 4 to 6 in the 24 hours.

The *aromatic infusions* of *gratiola offic*, of *Klamia lat.*, of *enula campana* of sweetfern, and of *veronica*, are also mentioned, as well as very hot teas with milk or with a tablespoonful of *Canada Balsam*.

The following is a formula for a *tisane* highly recommended:

- ℞. Marsh-mallow flowers, 200 grammes.
Marsh-mallow root, 150 grammes.
Polygala root,
Liquorice Root, aa., 50 grammes.
Flowers of *Verbascum thapsus*,
Leaves of red poppies, aa., 25 grammes.

Divide in 15 part, one part for a litre of *tisane*.

The *cough* may be of *gastric origin*. It is then arid, dry, paroxysmal, short, and dangerous, on account of the *vomiting* it produces and the

hemoptysis it may provoke. It is checked by a sedative alimentary regimen; semi-vegetarian or lacto-vegetarian.

Before meals it can still be given, 2 drops of laudanum, or 4 or 6 drops at the end of the meal:

R. Dionin, 20 centigrammes.

Cherry-laurel water, 10 grammes.

There is yet another potion to employ:

R. Cocain hydrochlorate,

Codein, aa., 5 centigr.

Limewater, 100 grammes.

Chloroform water, 40 grammes.

A tablespoonful half an hour after meals.

A *tracheal* or *bronchial* cough will be relieved by analogous means: aromatic inhalations (benzoin, gomenol), *dry-cupping on the thorax*, *sina-pisms*, *cauterization*, *small blisters*, or we may employ the opiates.

R. Aqueous extract of opium, 1 centigramme.

Extract of datura, 5 milligr.

For 1 pill; 3 at $\frac{1}{2}$ hour interval.

A *paroxysmal cough*, as in cases of irritation of the bronchial ganglia will be calmed by opiates or by calming suppositories:

R. Powdered Opium, 10 centigr.

Cocoa-butter, 3 grammes.

For 1 suppository.

With the same object we can prescribe still the *orthoformiate of ethyl* (X drops on a piece of lump sugar, 5 to 10 times a day), *chloroform-water* (X drops, 5 to 10 times a day), or the following potion:

R. Bromoform, 4 drops.

Alcohol by dis., 25 grammes.

Tincture of Belladonna,

Tincture of Hyoscyamus.

Tincture of Grindelia, aa., XXX drops.

Add: Syrup of Codein, 75 grammes.

Syrup of Cherry, 200 grammes.

4 tablespoons full in the 24 hours.

For *plural cough* nothing better than small blisters, or perhaps feeble hypodermic injections of morphia.

HEMOPTYSIS.—As preventive means we should insist on the avoidance of efforts, of fatigue, or movements of the arm, of unnecessary speaking, as well as the greatest discretion in sexual intercourse and to sleep with the head high over a hair-pillow.

Animal food should also be diminished in quantity and to give up entirely alcoholic drinks. *Creosote* is to be interdicted and the same should be done with organic combinations of *Arsenic* (cacodylates, arrhenal).

If *hemoptysis* takes place, it is the duty of the physician to calm the patient and reassure the family.

Alimentation should be stopped, and the milk diet prescribed. The milk should be fresh and have the temperature of the chamber. *Tinapisms* covering the lower limbs, and sprays of ether over the vertebral column give often very good results. Dr. Gros, of Algiers, has recommended the application of ice upon the genital organs.

Dr. Albert Robin recommends also the two following potions given alternately, every half-hour a tablespoonful:

Potion No. 1.

- ℞. Ergot Bonjean, 4 grammes.
Gallic acid, 50 centigr.
Syrup of terebinthina, 30 grammes.
Dist. water, 120 grammes.

Potion No. 2.

- ℞. Calcium Chloride, 4 grammes.
Syrup of Opium, 30 grammes.
Boiling water, 120 grammes.

If the spitting of blood persists inject a solution of metallic ferments (*argentum*, 10 cc.), to be repeated the next day, or the *gelatine serum* (20 cc.), repeated every day, a 2% solution, sterilized at 120°, in order to avoid the tetanic spores found sometimes contaminating the gelatin.

Dr. Albert Robin does not recommend, however, the vaso-dilators: *trinitrine* or *nitrate of amyl*, and much less the vaso-constrictors, such as *adrenaline*.

The following *pills* may prove beneficial:

- ℞. Powdered Ipecac, 5 centigr.
Powdered Digitalis (leaves), 5 centigr.
Extract of Opium, 2 centigr.
Extract of Walnut leaves, 2 S.

For 1 pill, 5 or 6 daily.

In cases of *incoercible hemoptysis*, the emetics *Ipecac* and *Tartar emetic* have been administered by Baglivi, Stoll, Trousseau and Peter, but the above pills are fully sufficient.

3. *DYSPNEA*.—The best way to calm the *dyspnœa* is by perfect rest. If it is of nervous origin, prescribe the *valerianate of menthol*, X drops on a lump of sugar, several times a day, or oxycamphor, the 50% alcoholic solution, X drops, 3 to 10 times a day, or in powders of 25 centigr., 2 to 4 daily.

We may also employ the *Fluid Extract of Euphorbia pilulifera* (XXV to XXX drops in doses of 5 drops); the *pearls of ether* (8 to 10 daily); *acetic ether* (XX drops in any suitable emulsion); or the *ammoniacal liqueur of anise* (X drops 4 to 5 times a day in a little water). Strictly speaking, if the bronchial obstruction is considerable, 1 gr. 50 of *Ipecac* in 3 powders should be given as an emetic.

The *opiates* may be employed here as in *cough*.—*Journal des Practiciens*.

Analysis: These indications are given by one of the most distinguished clinicians of France. Of the drugs mentioned in this interesting article, we are well acquainted with *Aconite*, *Belladonna*, *Bryonia*, *Ipecac*, *Tartar emet.*, *Opium*, *Hyoscyia*, *Stramonium*, *Digitalis*, *Grindelia*, *Polygala*, *Euphorbia* and *Terebinth*, but we are sorry to see what a strong hold has yet absurd polypharmacy on the *allopaths* of France, and worse yet, how they keep on employing the cruel means of the time of Galen, such as *dry-cupping*, *sinapisms*, *blisters*, &c., and who would think in our days of "*pintes de feu*," but those saturated with tradition and empiricism and incapable of breaking down the fetters which binds them so effectually to stupid, antiquated practices.

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THE MEDICAL SIDE OF OUR STOMACH CASES.

BY

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(Read before the Atlantic City Medical Society.)

WE fear that an audience such as is gathered here to-night, in America's Greatest Health Resort, will hardly see in the title of our paper, the evidences of a correct taste. Yet that is what we propose to talk about, "The Medical Side of Our Stomach Cases."

Not that the writer believes the medical side is the only side that should be discussed; but because he believes that it is the more important side, embracing as it should embrace everything that is to be done for the subject of gastric disease, up to the moment when the surgeon appears upon the scene and assumes control. I can think of few topics that might be more interesting to physician and to surgeon alike, than diseases of the human stomach. To the physician, because of the marvelous growth of the more modern methods of gastric diagnosis within recent times, the better understanding of metabolism; and, the high development of dietetics, as an art. All these things have enabled the physician of to-day to view his stomach cases in a better light, and to do better work in diagnosis and therapeutics in this class of affections, always providing that he wishes to do better work. To the surgeon this topic is of great and increasing interest, because more and more frequently is he being asked to remove, by his peculiar art, obstacles and impediments to the recovery of gastric cases, which no internal therapy can ever hope to influence.

And what shall be said of the progress made by gastric therapeutics in recent times (medicinal therapeutics). We think that there has been a very demonstrable progress and improvement. Simplicity and directness are much more evident to-day than formerly. The man who can see no coincident and corresponding growth in that side of the subject pertaining to the alleviation and cure of gastric ailments, in their earlier stages, by internal remedies, has not looked carefully. The therapeutists of the homœopathic school have not been idle, but we have not done all that we might have done. There is no body of medical men in the world, that have at their command a more highly developed system of medicinal therapeutics than we have; nor has any other body of medical men a clearer and more comprehensive mental grasp of the *different* ways in which drugs may be used for the cure or alleviation of disease. Of such a body of medical men much is naturally expected, in the development of purely medicinal therapeutics.

Every one of us has doubtless often been impressed with the thought that the more *serious* lesions of the stomach which we medical men see, and which we are asked to cure; and which we cannot cure, by the means at our command; represent, for the most part, not initial lesions, but final results. Final results sometimes, of a rather lengthy series of pathological happenings. The evidential force of the clinical history of our more serious, incurable gastric lesions; seems to me to be very strong in this direction. They are often but the last link in a vicious chain. In many such cases the sequence of events is very plain to us, as we look *backward*, after once the last link has been forged; and, the final serious lesion is before us.

It stands to reason that the medical man will always be helpless when confronted by a cancerous mass, a progressive necrotic ulceration, an enormous permanent dilatation, a major displacement or a cicatricial deformity. And it has been a godsend to the medical man, that his brother, the modern surgeon, seeing his helplessness and despair, came to the rescue with surgical suggestions that being first offered as possibly curative, are now offered as probably curative, in a percentage of cases that is constantly growing larger.

It is this line of thought that moves me to persuade you that the real and the most promising field of action for the curative measures of the medical man, lies in that antecedent period

before the final result has appeared in the form of a grave gastric lesion. Indeed, it does appear to the writer, that if we admit this to be true, it will help us to clearly discern the responsibilities which even the less severe gastric disturbances impose upon the medical attendant, and it will help us to recognize in the inadequacy of our remedial methods, a good reason for calling upon the surgeon when we are confronted by one of these graver final lesions. We have no patience with that silly antagonism which some men feel towards operative procedures in general. These men too often assume such a position through false reasoning. Let me offer you one instance that to my mind is remarkable and one which could very easily, through false reasoning, become evidence against surgical interference in serious gastric lesions. A woman came to me complaining of general poor health and this is her story: Some years ago she went to one of our great hospitals for treatment. She was a human wreck, the trouble was diagnosed as extreme gastric dilatation. One whole year she stayed in that hospital and was treated by every means known to the medical man. At the end of a year's treatment her condition was even worse than upon admission. The surgeons then took her in hand. First, they did a gastro-enterostomy. Unfortunately, however, after this the bile ran the wrong way, into her stomach; and was constantly vomited. Then she said "they did a gastric plication." This made matters better. But in a few months she had a bowel obstruction from adhesions. Then they opened her again and fixed that. Then she had another obstruction and that was corrected. Finally she said, "I got away from them, but I do not expect that I will ever be well after all I have passed through." I examined this woman carefully and found that she could eat and digest food properly. She was well nourished and quite able to attend to ordinary duties. She looked plethoric and plump. I asked her how her present condition compared with her condition before she was so mercilessly cut up. "Oh," said she, "there is no comparison, if you put it that way." This instance, although extreme, when correctly analyzed, becomes a triumph of surgery. Falsely reasoned out, it might easily be given as a confirmation of some silly fellow's opinion that all surgeons are butchers. Still the ambition of every medical man should be to so treat and manage his gastric cases in their earlier stages of development, that

the surgeon shall later be cheated out of a fat fee, if that can be accomplished. Such is our duty to the patient.

It sounds as if the writer was claiming that every grave and serious gastric lesion, represents merely the last stage in the development of some progressive pathological series within the stomach or outside of it. I am not sure but that one might reasonably make such a claim.

If you admit as you must that dyspepsia is the resulting disturbances that follow the ingestion of incompatible food and drink mixtures that ferment; and that acute catarrh of the stomach, or acute gastritis is oftenest but the reactionary irritation following a dyspepsia; then you have a series to start with.

If you admit, and you must, that oftenest that great group of gastric neuroses; the sensory neuroses, the motor neuroses and the neuroses of secretion; depend upon some previously existing disease in an outside organ; or upon some general constitutional derangement; and that the existence of these various neuroses favors or even may cause, atony, dilatation, food retention, gastropotosis and enteropotosis and ulcer; why, then you have a series sure enough. And if you admit, as you must, that these neuroses favor or lead up to hemorrhagic erosions, ulceration; and that ulcer leads to cicatricial deformity or may even be the preliminary step to cancer; why surely you have a series of morbid processes evidently progressive and leading up to the final grave and final lesion.

I might multiply words, but I am reminded of the story told of President Hadley, of Yale, who, one Sabbath morning, was seated on the platform of the chapel with a certain eminent divine who had come to preach to the students. While waiting for the organ prelude to finish, the domine turned to Dean Hadley and asked: "Professor Hadley, how long may I preach?" "Why," replied Hadley, "there is really no time limit, you may preach as long as you wish. Only," he continued, "it is generally understood here, that no souls are ever saved after the first twenty minutes." It may be the same with stomachs, but I trust not. May I leave the thought with you just here before going farther, that probably there is a progressive development in all gastric pictures, that probably most of our gastric cases are amenable to the arts of the medical man in their earlier periods of development and that if we form our diagnostic conclusions carefully and slowly, from the combined results of general physical examinations, completed

and rounded out by modern gastric methods of examination, we may be able to recognize the curable stage in time. It is rarely that the consultant is able to arrive at as accurate a diagnosis in one visit, as the attending physician; who arrives at his diagnosis after repeated examinations and continuous thought and study. The physician is the workman who should do this. The wise medical man observes his stomach cases from two viewpoints: the diagnostic and the therapeutic. He never rests his diagnosis upon the findings of the chemical laboratory alone. It must rest upon the sum total of the data obtained by the general physical examination, the modern special gastric methods; and, his estimate of etiological values revealed in the history. We should say that the chemical analyses of gastric contents should be used to put the finishing touches upon the general physical examination.

The vast and interesting subject of gastric diagnosis that has doubtless been discussed in your meetings so frequently, is not yet a perfected art. The last word has not yet been spoken. I think we may say, with perfect safety, in this sanctuary removed from lay ears, that doctors often cure stomach cases without knowing exactly what has been cured. And, as I see some of our surgical friends smiling, I will add also that surgeons have been known to change their diagnoses, just after the initial incision had been made. Indeed, some one who knows has said: "Every laparotomy must necessarily be an exploratory incision." However, such facts do not lessen our responsibilities in any direction.

Now, I have chosen out of the vastness of this subject two topics upon which I should like to discourse for a very short time, because these topics have not been given the prominence which their importance demands.

1.—The recognition of the *active* etiological factor in your stomach cases, especially in the earlier periods of their development.

2.—The recognition of those symptoms upon which an internal remedy may be prescribed with expectations of success.

We believe that an adequate apprehension of the active etiological factor or factors, goes a great way towards assuring the cure of our stomach cases. The usual presumption is that some dietetic sin is the active etiological factor in the early stages of a gastric affection, but the apparent cause is not always the real cause. I know a man who was a great sufferer,

first from repeated attacks of acute gastritis and later from chronic gastric catarrh. He had been what is termed "a hearty eater" and in his case, as it so often does, this meant that he could not discriminate between food and rubbish. His diet was regulated and he received much treatment, but grew gradually worse and was clearly en route to either gastric erosion or worse. The active etiological factor was finally discovered to be his *mental* attitude towards the petty details of his business. He got an assistant; and devoted his time to the larger things and then convalesced rapidly; and was soon able to eat what he wished and as much as he cared for. This is a very ordinary story to tell to this audience, but it shows well that psychical factors, alone, may cause an acute; and, finally, a chronic progressive gastric lesion by weakening, not only the motor power of the stomach, but the gastric secretions as well. Another man, a physician, worked so hard and worried so much that he emaciated, developed an atonic stomach, with a putrefaction and fermentation. After a while his stomach seemed to have become somewhat dilated. No treatment helped him, until some one gave him a book which taught him that no man may work hard and worry hard at the same time. He ceased his worry, and worked still harder and got well.

Innumerable cases of tedious gastric disturbance are cured by the simple recognition of a causative factor which at first glance seemed irrelative. A hyperchlorhydria, which had been diagnosed as nervous dyspepsia, in a New York business man, was cured after it had been ascertained that the man ate lunch at an Hungarian restaurant. Not every man who possesses an American stomach may do this regularly with impunity.

It may be that our stomach case needs a dentist rather than a doctor. How common it is to meet, especially in dispensary practice, girls who are gravely anæmic and whose menstrual functions are deranged. A large number of these girls suffer from dyspepsia which is followed by gastritis; this by gastric erosion and finally definite gastric ulceration.

Surely such cases must not be looked upon as primarily stomach cases. No real, no permanent good can be accomplished in such cases, until we go back to the beginning of the series of morbid changes and there search for the active etiological factor. In many instances we shall find that the active first cause of her chlorosis was close confinement in illy venti-

lated mills or workrooms, neglect of the natural functions through lack of sanitary conveniences, hasty breakfasts, or no morning meal save the cup of coffee; silly mid-day lunches, heavy evening meals taken when the system is exhausted; followed by late hours spent in frivolous diversions. Shall anyone claim that we may cure such cases unless we recognize and remove the essential first cause? Yet these girls get iron, diet lists, purgatives and so on; or, they are shut up in a hospital, rested, starved; and, finally sent out, only to suffer from recurrence of the stomach trouble.

A friend of mine told me that he had a very intractable stomach case which he could not cure, until one day the man's wife asked the physician whether "it was not dangerous for her husband to go about with an inguinal hernia." A simple truss, to the amazement of the doctor, cured the stomach case. It would be a pity if one's devotion to modern gastric methods should make him insensible to the active etiological factor or should make him think lightly of investigations along this line.

Let me conclude by asking your attention to my second topic. If it be possible to discover the active etiological factor in the case, then we must simply annul it. This is accomplished by its removal, the removal of our patient from its pernicious influence, the modification of its influence by changing the mental attitude of our patient to it (psychical factors) and so on. Medicines help us in this task and they help us to ameliorate or to cure the progressive functional and organic changes which have resulted from it. Up to a certain point medicines help us to cure the lesions that have resulted. Beyond this point, nothing helps us save surgery alone. The vital question is: How shall medicines be selected with expectation of success? I hope there is no one present to-night who believes there is but one method of using drugs for the cure of the sick. Drugs may be used in many ways. The therapeutic art may be practiced in accord with many methods. No school of therapeutists can endure, if they recognize but one method. When you hear a man bewailing the catholicity of some members of our school, tell him that homœopathy lives because she recognizes that there is more than one method of utilizing the beneficent action of drugs; not simply because she knows her way is the best way.

You can follow the method of contraria if you like, you can give bicarbonate of soda if you think there is hyperacidity.

You may give hydrochloric acid if you think there is subacidity. You may give morphia if there is pain. You may give bismuth if there is an ulcer. You may give strychnia if there is atony, and so on. We ought to remember when we do these things that the men who regularly pursue such therapeutic methods, are the most skeptical regarding their utility. And do we care to repeat their failures?

These men frankly confess that drugs administered in this way, often embarrass and seldom assist the cure of gastric affections. They obtain better results from removal of the cause, diet, hygienic measures and from mechanical therapeutics.

Now what shall we say of the use of drugs according to the index of similarity? We may claim that they always help and frequently cure, providing the drug be selected upon those symptomatic features of the case that experience has shown to be those upon which we may *confidently* prescribe a drug. If you cannot obtain this data; or, having obtained it, do not recognize the drug which it peremptorily calls for, then you cannot help the case by internal medication.

I have taken too much of your valuable time, but I cannot close until I have made my meaning clear by illustration. We cannot help if we prescribe *nux vomica* for chronic gastric catarrh with constipation. The patient must show us the aggressive mental irritability of *nux*, he must have those wretched morning aggravations of *nux*, he must have the megrims, he must have the painful stomach states, that heaviness or fullness that come on long after food has been eaten, he must have the constipation or diarrhoea with irregular, inefficient peristalsis, his epigastric and abdominal regions must show the *nux* intolerance of pressure. In short, every portion of his body, if it be disturbed by his illness, must show disturbances such as *nux* is capable of *producing* there, in healthy people.

The only features of the stomach case upon which a remedy may be selected successfully according to the index of similarity, are those rare, peculiar features that *mark* the pathogenetic action of that remedy in the healthy. I believe that the remedy you select for your stomach case, solely upon "characteristics" will prove to be the most helpful, providing the "characteristics" are chosen not only from the gastric sphere, but from every part of the body that participates in the morbid picture. Now, I don't want you to reply that this is simply

what we have to do in every kind of a case. We do not need to do this under all circumstances. In some kinds of cases, it does not matter how we select our remedies, but when we are dealing with a progressive series of morbid changes—such as most of our stomach cases are—we must adjust our remedies with that accuracy which only can be attained through a close following of the rule of similia.

THE HEART IN DIPHTHERIA AND INFECTIOUS DISEASES.

BY

SIGMUND RAUE, M. D., PHILADELPHIA, PA.

(Read before the Germantown Medical Society, April 19, 1909.)

ACQUIRED heart disease is rare in infancy, the heart being remarkably free from pathological processes during early childhood on account of the infrequency of the acute infections which show a special predilection for the heart and its investments. The anatomical peculiarities of the heart at this period of life must also be taken into consideration. In childhood the heart is relatively large and possessed of unusual regenerative power, besides being capable of adjusting itself rapidly to meet such abnormal conditions as may interfere with its functions. One of the conditions which makes this possible is the relation of the heart to the arterial system. The aorta is very much larger in proportion to the size of the ventricles in childhood than in adult life, the ratio being 20 to 25 as against 6 to 29. As a result of this width of the arterial channels, the blood pressure is low and there is much less likelihood of dilatation of the left ventricle resulting than there is at the age of puberty when the aorta is at times observed to be abnormally small (Virchow).

The infectious diseases which attack the heart with by far the greatest degree of frequency are diphtheria and rheumatic fever. The former acts through its toxin directly upon the heart muscle, while in the case of rheumatism the organisms themselves most likely proliferate upon the serous membranes of the organ thus setting up a localized inflammatory reaction. Other infections which may produce endo- and pericarditis are scarlet fever, tonsillitis, pneumonia, while myocarditis is not infrequently observed in typhoid fever, influenza and pertussis. In

this paper I shall confine my remarks to a discussion of the clinical manifestations of cardiac disturbances complicating rheumatic fever, diphtheria and pertussis. Even with this limitation of my subject I shall be unable to do more than call your attention to some of the leading clinical data that are of especial diagnostic importance.

Acute primary endocarditis is quite rare before the fourth year, and then it is most likely an early manifestation of rheumatic infection. You are well aware that rheumatism in childhood is notably atypical in so far as articular manifestations are concerned and in the absence of joint involvement we can only surmise the rheumatic nature of acute febrile outbreaks presenting nothing more definite than irregularity of course with tendency to recurrences; onset with pharyngitis or tonsillitis with associated joint pains and various skin eruptions; possibly a rheumatic family history. A blood examination is of value in these cases as there is usually a moderate leucocytosis, this aiding us in eliminating an influenzal infection. If, during the course of such an attack, a systolic murmur develops at the apex, uninfluenced by cardiac excitement, deep breathing or posture and persisting after the subsidence of the fever we are justified in diagnosing endocarditis. At this age a systolic murmur is rarely functional, even in profound anæmia the so-called hemic murmur is rare. Last December I saw a child 18 months old who developed a systolic murmur during a febrile attack that came on suddenly in the midst of perfect health. The associated symptoms were acute rhinopharyngitis and abdominal distention. From day to day the murmur increased in intensity so that it became distinctly audible posteriorly. The fever lasted ten days and the murmur, although less distinct, remained after the fever had subsided. An interesting observation in conjunction with this case was the fact that a few days after the onset of this infant's illness both his father and nurse were attacked with a severe follicular tonsillitis. I am of the opinion that the same organism which produced the tonsillitis in the case of the two adults set up the endocarditis in the infant either directly by gaining entrance into the circulation through the nasopharynx, or, what is more probable, by means of the toxins absorbed from the throat. This form of endocarditis is therefore not strictly speaking rheumatic although closely allied thereto.

In marked contrast with the scarcity of endocarditis in early

childhood stands its comparative frequency in later childhood, the number of cases increasing in notable proportions up to the time of puberty. Rheumatism and chorea are common at this age and endocarditis is in reality but a complication, or we might safely say one of the clinical manifestations of these conditions. Even when endocarditis is apparently primary at this time of life, there will be found associated some one of the "rheumatic" symptoms or what not infrequently occurs, the endocarditis precedes the outbreak of rheumatism or chorea. Again, it may follow in the wake of an attack of chorea although in the majority of instances the conditions co-exist.

The systolic murmur developing during diphtheria is in the majority of cases not due to endocarditis but is a manifestation of myocarditis, indicating relative mitral insufficiency. This is repeatedly verified both by clinical observations and by autopsy findings. The murmur persists as a rule during the entire period of convalescence but with the improvement in the child's general condition and the re-establishment of cardiac tone the murmur gradually becomes more and more faint until it eventually disappears.

The circulatory disturbances of diphtheria present a more or less distinct clinical picture and merit special consideration. In the first place, the effect of the toxin may be so overwhelming that death results in the first few days of the disease, before sufficient time has elapsed for the production of organic changes. In such cases death may most likely be attributed to paralysis of the vasomotor centre in the medulla.

The early anatomic changes observed in diphtheria are fatty degeneration, granular and hyaline degeneration, and lastly interstitial changes, either developing secondarily in connection with the parenchymatous changes or occurring as the result of the invasion of the myocardium with streptococci. Naturally the prognosis depends upon the extent of the process and the rapidity of its progress.

The early fatty changes may be transitory and present no distinctive clinical symptoms. The cardiac disturbances accompanying the parenchymatous and interstitial changes are more characteristic. The serious circulatory manifestations occurring in the first few days in cases that have had no anti-toxin or in which the system becomes overwhelmed with the diphtheria poison from the onset are more likely due to involvement of the vasomotor centre rather than to myocarditis.

The earliest manifestations of myocarditis do not as a rule appear until about the beginning of the second week. The pulse becomes weak and slow; it may become fast and remain persistently so, but bradycardia is the more characteristic condition of diphtheretic myocarditis. Arythmia is also common, but irregularity in the force of the heart beat is more significant than irregularity in rate. In conjunction with these symptoms a systolic apical murmur may develop. This may be due to relative insufficiency either from dilatation or from faulty action of the papillary muscles. Endocarditis is rarely the cause of these murmurs. One of the most important diagnostic signs in this condition is the gradual disappearance of the muscular element of the first sound at the apex. Howland (*Jour. Amer. Med. Ass.*, Dec. 1908.) lays great stress upon this sign in the recognition of myocarditis and he says on this subject: "The absence of a normal sound or element of a sound is exactly as important as the presence of an abnormal one, though not so apt to attract attention"

Death from heart failure may occur at the height of the disease or after the membrane has already disappeared and the patient appears to be out of danger. A sudden exertion during convalescence is to be most strictly guarded against. In my experience I have seen heart failure relatively more frequently and earlier in laryngeal than in faucial diphtheria. It has been a great disappointment to me to have several children die in this manner after I had relieved their suffocation by intubation and they appeared to have every chance for recovery. The reason for this relatively high mortality rate as compared with faucial diphtheria is I believe the late administration of anti-toxin and the delay in intubation which is unfortunately more frequently the rule than prompt interference.

In regard to the role played by the pneumogastric nerve in the cardiac paralysis of diphtheria, Howland expresses himself as decidedly skeptical, believing with Romberg, Krehl and others that the myocarditis is the primary factor. It has, of course been demonstrated that slow pulse, epigastric pain and vomiting may result from causes other than inflammation of the pneumogastric nerve and that pneumogastric nerve degeneration has been demonstrated in cases which did not present this symptom complex. Nevertheless, we encounter cases in which the association of respiratory symptoms and the presence of a rapid, irregular pulse gives every clinical evidence

of involvement of the vagus. And this is not strange when we recall the pronounced affinity which the diphtheria toxin shows for peripheral nerve structures. Holt believes that there can be no question that both the nerve and muscle are often simultaneously attacked. The cardiac weakness of diphtheria may indeed be partially due to disturbed innervation. Thus, Eichhorst demonstrated the development of fatty degeneration of the heart in fowls, and Wassilieff (*Zeitsch. f. Klin. Med.*, Vol. III, 1881) in that of rabbits after section of the vagi. Lauder Brunton (*Therapeutics of the Circulation*, 1908,) expresses the opinion that the great weakness of the heart after diphtheria is most likely due to a double action, namely to the effect of the toxin upon the muscle fibres and to its effect in producing paralysis of the vagus nerve just as it does of the fibres going to the pharynx. This is shown by the extreme rapidity of the pulse which may persist for months.

Whooping cough is a disease which I believe is not sufficiently recognized as a cause of cardiac trouble. No doubt the disturbances of the circulation encountered during and after this affection most frequently are due to dilatation of the ventricles from heart strain, although myocardial changes have been observed by Koplik and Osler. Personally my clinical observations in this direction lead me to believe in the likelihood of myocarditis resulting from the toxin of this infection as I have seen a number of cases in which a murmur and clinical evidences of valvular insufficiency persisted for months after the attack. I have at the present time two cases in which a slight leak, probably of this nature, has persisted for over a year.

The importance of auscultating the child's heart during all acute infectious diseases cannot be overestimated in the face of the facts I have attempted to bring out in this limited discussion of the topic. The important question naturally arises. What is the significance of a murmur should one be detected?

I have already pointed out that functional murmurs are rare in early childhood and it is my belief, based chiefly upon clinical observations, that murmurs at this time are more frequently myocardial than endocardial. After the fourth year, accidental and functional murmurs are relatively common. Thus Butler (*Amer. Jour. Med. Sc.*, July, 1907,) found in 64 out of 100 apparently healthy children a murmur in the cardiac area. These murmurs were all systolic and were heard most

distinctly over the pulmonary area in the majority of cases. Butler classes them all as cardio-pulmonary, but he states that they were usually heard most distinctly at the end of expiration. I should therefore class them among the so-called functional murmurs, originating in the conus arteriosus which is more exposed during expiration, and consequently more accessible to the ear at that time. Indeed, the frequency of functional murmurs over the pulmonary area is so notorious that Balfour speaks of it as "the area of auscultatory romance." The typical cardio-pulmonary murmur is heard loudest at the apex, is systolic in time and is intensified by deep breathing. Hochsinger, (*Auscultation des Kindlichen Herzens*, Wien, 1890), who first called attention to this peculiar accidental murmur distinctly states that it is intensified by holding the breath after a deep inspiration and may even disappear after forced expiration. This is an observation I have been able to verify repeatedly.

The organic nature of a murmur must be determined more by the presence of concomitant signs of embarrassed circulation, pulmonary stasis, increased tension in the pulmonary artery and increase in the area of cardiac dulness with gradual extension of the apex beat either outward or both downward and outward rather than by any distinctive features of the murmur itself. A loud blowing systolic murmur may be heard at the apex and be well transmitted laterally and yet the valves may be entirely free from vegetations. Within a few days I had a case of this character in my ward at the Hahnemann Hospital, which at the autopsy displayed a marked relative insufficiency from myocardial degeneration with normal valves. On the other hand, a case of malignant endocarditis may run its entire course without a murmur. After all, it is no doubt the associated myocarditis, as Krehl believes, which is responsible for the murmur in an acute endocarditis, for the slight deposits upon the valves could certainly not produce sufficient interference with cardiac function to give rise to the leak indicated by the characteristic murmur. I am of the opinion that the differential diagnosis between an acute or sub-acute myocardial or endocardial affection cannot be made upon the evidence presented by the physical signs alone and that frequently we must reserve our judgment for a long period during which time the subsequent developments in the case may point us in the proper direction.

THE PRESENT-DAY RELATIONS OF THE TWO LEADING SCHOOLS OF MEDICINE.

BY

EDWARD CRANCH, M. D., ERIE, PA.

THERE is a great modern multiplication of creeds and schools of medicine, by which we see with us to-day, besides Homœopathy, the rejuvenation of the Old School into "Rational" or "Regular" Medicine. Then the Eclectic School, struggling to keep life in its dry bones, and only doing so by doing what all real physicians have to do, if they are true to the call of suffering humanity, namely, using all that promises valuable help anywhere, as the name Eclectic implies, for a true Eclectic rises above the traditions of the herbalists and Thompsonians, and hydropaths, from which their school has sprung, and selects all that he thinks will benefit humanity, from every system. Then the Physio-Medical School, an offshoot from the Eclectic School, but selecting only *one* of their old and exploded ideas, namely, the notion that the physician should discard all that is strictly poisonous from his *materia medica*, and prefer to soak his patients in pepper tea, and flood their stomachs with quassia, and boneset and valerian, neglecting such well-tried drugs as mercury, antimony, belladonna, opium, etc.

Then we see the Osteopaths, who started as bone-setters, and have expanded their horizons and their ambitions, until they claim to be able to treat pneumonia, diphtheria, typhoids, and gall-stones by manipulation of certain bones, giving freer circulation to the nervous forces, or else pressing upon so-called "nerve centers" and "inhibiting" various functions.

It is well for the human race that most of the true nerve centers are packed away safe from manipulation, in the skull and vertebræ, and in the interior of the thorax.

Then the "faith-curists," quarreling among themselves like Christian churches, and united in gambling upon the curative powers of nature, and the credulity of the human race.

When the Homœopaths first made known their discoveries, backed up by exact scientific researches and by the most wonderful and undeniable successes in cholera, in yellow fever, in erysipelas, in typhoid, and in nearly all ordinary diseases, as

shown by our favorable rates of mortality, which Dr. Osler says now, are not disputed, the announcement was at first met with incredulity, then with ridicule, and then with persecution; the early followers of Hahnemann being forced to resign from their associations, and then completely boycotted. The small doses, the exulting tone of our reports, and the opposition of the druggists and pharmacists, combined to anger the dominant leaders of the medicine of that day, and Homœopaths were forced in self-defence to found their own separate organizations, which have certainly prospered to a degree.

When the present writer was living in the District of Columbia, he was, as a graduate of an Old School college, received as a member of the medical society of the alumni of his college, but on going to New York to study Homœopathy, he was followed by a letter from the society stating that "charges" had been preferred that he was practicing Homœopathy, and asking if it was so. On receiving an affirmative reply, with reasons for the step taken, all further communication was stopped, and the publications of the college no longer forwarded as formerly. No information was vouchsafed as to the action of the society, nor was any answer made to his letter, and he was, presumably, dropped from the rolls.

Only a short time after that, when President Garfield was being worried to his grave by the blunders of his would-be surgeons, one of them, Doctor Bliss, was expelled from the District Medical Society because he permitted Doctor Edson, a Homœopath, to see the President occasionally with him, and after that another prominent physician of the District, Doctor Cox, was also expelled, for consulting with Doctor Bliss, who was "tabu."

For years later, the same spirit prevailed, and the majority took the greatest pains to keep themselves in the dark as to the real facts of Homœopathy, debarred us from their journals, refused consultation, never read our books, and lost no opportunity to assail us as uneducated, and as quacks and charlatans, beneath the notice of honorable men.

The result was the further upbuilding and success of the Homœopathic school, the multiplication of its colleges, hospitals and societies, the legal recognition of its rights and claims, and the complete establishment of Homœopathy in the favor of the best part of the community.

With the late revival of greater attention to all depart-

ments of medicine, except therapeutics, and the consequent springing up of new and newer schools of thought, the American Medical Association now wishes to ascertain who are the really educated and efficient physicians, and to enlist them all in the effort to put down quackery, and all uninformed pretenders to the noble art of medicine. To this end they have instituted an inquiry into the teaching of all colleges, and the general acquirements of their graduates.

The result has been the vindication of Homœopathic colleges and hospitals as being posted in all the medical science of the day, as well as the average of medical colleges and hospitals anywhere. This is slowly bringing about a change in the attitude of the dominant school towards the *members* of the Homœopathic school, but not yet towards Homœopathy as a system for the selection of remedial agents.

That part they still affect to decry, and to try to get away from, but the logic of history will sooner or later lead them to really investigate our claims and then there can be but one result, the triumph of our methods in therapeutics. In what goes to make up seven-eighths of medical learning, namely, in anatomy, physiology, hygiene, surgery, obstetrics, diagnosis, bacteriology, dietetics, and local treatment of diseases needing such, we are as absolutely at one with the rest of medical men, as it is possible to be, while in internal therapeutics, which is our chosen field, we can say without arrogance, that we have the best and most scientific method as yet known to mankind.

From the *North American Journal of Homœopathy* it appears that the "Central Ethical Committee" of the British Medical Association sought to have Homœopaths barred from consultation "except for the purpose of diagnosis" but this special concession was lost on a vote. It was brought out in discussion that Homœopaths are not excluded from the Association, and it was sought to provide for their exclusion "because they assumed the title of Homœopaths, and had a special directory, and because they pretended to be something superior to the ordinary practitioner."

The *British Homœopathic Review* says of this, that while we do not claim to *be* anything superior, but are as modest as any in our *personal* claims, we do profess to have in *Homœopathy*, a something superior to what the ordinary practitioner employs or professes. Every Homœopath, the *Review* continues, knows that he has a "something superior," and he is

anxious that others should test the matter, and find out for themselves.

Doctor Osler affects to consider Homœopathy as much out of date as "allopathy" which he says modern physicians repudiate, or as the old ideas of the solidists and the humorists, who in the eighteenth century contended whether disease resided in the solids or in the fluids, and professed to govern their therapeutics by evacuants selected in accordance with one or other theory.

Now the men of the dominant school seek to bring us to their own way of thinking about Homœopathy, and we are besought to "give it up, and join them," that means, for us to help them against the osteopath and faith-curist.

No, we know we have a good thing, which they have simply shut their eyes to wilfully, and which will yet prevail in the field of therapeutics.

In Johns Hopkins Medical School, is a fine place to find out what ails one, to have the blood and tissues tested, and minute daily reports taken, whereby the patient is duly impressed,—for a while: but when he finds that he is kept on one remedy (a favorite there is a dose of *tr. nux vomica*, 15 drops three times a day), and that he gets no better, but develops all the symptoms of *nux vomica* or some other drug instead, and then is rapidly cured by a Homœopath, he naturally prefers the system that really helps.

A favorable sign of the times is that there is more inquiry now for homœopathic books and medicines, and a realization of the fact that Homœopaths do know the remedies and methods of the old school, and that where we do not use them, it is simply because we know a better way, which we are anxious to impart to "our friends, the enemy."

To keep this end in view, we must strengthen our own organizations as much as possible, join our own societies, and show that we have something to teach. Then, when we write for their journals, we will get a hearing, and will be listened to gladly, as giving help in many otherwise doubtful situations. If we show that we are reading their literature, studying all that is new and good in medicine, then we will spread Homœopathy, slowly, of course, but always for the betterment of the race.

Then we must write for our own journals, and these jour-

nals must have a care in what they publish, so as to command respectful attention.

There is no better means to the cultivation of proper enthusiasm, and to the real advancement of medical science, than to join the larger bodies of our school, and to attend their meetings. The State Homœopathic Society of Pennsylvania held its fourth meeting in Erie, in the '60's, but they have not been here since. Why? Because there has been no really enthusiastic society here to invite them. It would do us all good to have them here, not nearby, at Cambridge, but in Erie, and then invite all the other fellows to hear what we have to offer. Let us think of this, and work for it, till we can accomplish it.

At the last meeting at Harrisburg, there were none of us, it seems, present, and they will be apt to think, as did Hastings and other politicians, that "Erie is a little off the line, you know"!

From a letter of Dr. Z. T. Miller, we gather that Doctor Maddux, of Chester, is the new president, with Dr. Swartz, of Harrisburg, first vice-president, and Dr. Alvah W. Stewart, of Pittsburg, second vice-president. Other officers continued. Doctor Watters, of the Boston University, showed the influence of homœopathic potencies on the "Opsonic Index." Experiments in this line are still going on. Hepar responded only in the 2x, others higher. This is work in the right direction. Dr. Dewey, of Ann Arbor, was there, doing propaganda work for the American Institute of Homœopathy. He showed that only about one-fourth of the Homœopathic doctors of the State of Pennsylvania belonged to the State Society.

There is no medical legislation planned for this winter, so far as known at present. The Allopaths (beg pardon, Majority School) desire to wait until they have a bill prepared for universal adoption in all States.

This will endeavor to conciliate the Homœopaths, and will try to provide a separate examination in Homœopathic materia medica. The single-board idea is to rule, and as we have been practically under one board, in the shape of the Medical Council of Pennsylvania, for the last fifteen years without calamity, it seems in the interest of exactness of ascertaining the qualifications of all, and in the interest of harmony and self-respect, and of expedition and lack of confusion, for us to

agree to the one-board programme. If necessary, we can fight again, and fight harder than before, but the majority seem to have had enough of fighting, and some of them are willing to learn.

In all this there is no thought of deserting Homœopathy, but rather of making it more respected, as being willing to come out in the open, and show the attainments of its following.

Let us spare no opportunity for impressing upon our friends that we are not Homœopaths for commercial or advertising purposes, but only and always as specialists in internal medicine, and that we offer our services as teachers or consultants to any and all real physicians.

The American Institute of Homœopathy, at its last session, formed a bureau of publicity, by which it is proposed to attract new students to Homœopathy.

It is proposed to ask the aid of friends of Homœopathy in putting into the hands of students of colleges and high schools of recognized standing, pamphlets urging the attention to Homœopathy, of those who intend or may intend later, to study medicine. To put as much information before the people as possible, in magazine articles and newspapers, and to send officers of the main body to various Homœopathic societies, to stir their enthusiasm, and strive to increase their membership.

In this it is fitting that every Homœopathic society assist, by forming and keeping up study classes, where we may keep up with improvements in the general field of medicine, and perfect our own usefulness to the community, not forgetting the especial need upon all of us to be perfect in that which we profess.

As men, we want to be better acquainted with one another, and to help each other in every way we can, having proper tolerance for every other man's opinion, and not being disposed to punish him if he differs from our own especial views of things.

So by geniality, and a strong purpose to make ourselves that which we profess, let us keep up our studies with perseverance, knowing that that way lies success.

We should have the latest books in every department, and read them, so that we can recognize diseases and the natural limitations of medicine, and not try to perform impossibilities, and so only get ourselves laughed at.

Let us "discipline" no one for wavering or uncertainty, or doubt in his own conscience, but remember that we are banded together to work for humanity, and be ready to receive and extend help wherever possible, and to work for others as if we were working for ourselves.

If we know Homœopathy thoroughly, we can do good to many, but let us not be backward to learn that there is also a wide, wide field for our energies outside of Homœopathy, and let us be always ready and willing to learn of the "other fellow."

SERUM THERAPY IN ITS RELATION TO HOMŒOPATHY.

BY

ELDRIDGE C. PRICE, M. D., BALTIMORE, MD.

(Read before the Maryland State Homœopathic Medical Society.)

WHAT is understood by serum therapy is the use of blood serum in which has been incorporated by some effective process a product from some part of an animal organism, either physiological or pathological, which may be used for the prevention or cure of some pathological condition.

These agents when introduced into the human organism produce an effect upon the serum of the blood of the patient which is supposed to strengthen the restorative power of the organism so that diseases may be prevented from developing or cured as the case may be.

In this problem another factor which has comparatively recently been called to the attention of the medical profession is what is known as the opsonin. This opsonin is one of the constituents of "the blood serum of a normal animal which renders bacilli prone to be absorbed by phagocytes." It seems to act as what might be considered a stimulus, a sauce as it were, to the appetite of the phagocyte. In the average healthy human being when a toxin of any kind is introduced into the organism and finds its way into the blood current the normally stimulated phagocyte seizes upon it and destroys it.

This whole question of opsonins is in the experimental stage, apparently, but it is contended by some that each particular bacterium has an opsonin that will specifically stimulate

the phagocyte to destroy it. We, therefore, are told that in a normal state of the human organism these phagocytic cells will protect the organism up to a certain point: beyond this point these health guardians are overcome and the pathological micro-organism is left to do its work.

The endeavor, therefore, of the student of serum therapy is to increase the resisting power of the organism to disease, by increasing the amount of opsonin in the blood serum, thus stimulating the phagocyte to do an unusual amount of work.

There are quite a large number of serums which are supposed to have this effect upon the opsonin, and which are today used to a greater or less extent, among which may be mentioned anti-amarillic serum, for use in yellow fever, anti-anthrax serum, anti-leprous serum, Haffkine's serum, to be used for plague, anti-tetanus serum, Kitasato's or anti-cholera serum, Calmette's or anti-venomous serum, anguilla or eel serum, besides many others not so well known.

These serums are all supposed to be capable of increasing opsonins in the blood in quite a positive degree.

When the resistance of the organism to the inroads of pathological micrococci is strengthened the opsonic index of the organism is said to be raised, when the resisting power is reduced the opsonic index is said to be lowered. Through an examination of the blood this question of the status of the individual opsonic index is from time to time determined during the course of an experiment either from a physiological standpoint or a therapeutic standpoint. In the case of the use of tetanus antitoxin the opsonic index is raised to where the bacillus tetani is destroyed by the physiological phagocyte, and the cause of the condition having been removed the condition which has been the effect of this cause gradually resolves itself back to the normal status of the organism. So it is with all other of these agents, whether it be in the case of tuberculin, in the case of syphilin, in the case of anthracin, etc. The foregoing are pathological products, but the same applies to the cultured venom of the serpent, or the serum of the eel.

As I understand the subject, the serums to which your attention has been called, while they act against the toxins, and may be regarded as antitoxins, yet as a matter of fact they are the cultures of the toxins themselves, and the explanation of their action in disease may be regarded in a very different light from that of the antitoxin or anti-body.

As a matter of fact when we consider the antidotal effect of an antitoxin—that substance which is generated in the organism by a toxin, the antithesis of which it seems to be—we must recognize the fact that the action is entirely an antidotal action, the effect being produced apparently directly upon the toxin itself, just as an alkali will neutralize an acid when brought into contact with it. I do not consider that in such a case any law of therapeutics is involved. It is different, however, in the case of the cultured toxins. Here the agent which is responsible for the disease condition, becomes, through a process of dilution the cure of that condition, and this cure is brought about not by the action of the cultured agent upon the toxin in the blood of the patient directly—as is the case with the cultured anti-body—but by increasing that property of the opsonin of the blood which causes it to act as a stimulus upon the phagocyte, which in turn destroys the toxin, or the bacillus which generates the toxin.

As to the principle by which such results are secured there seems to be a difference of opinion. Dr. Richard Cabot says the results brought about by the various serums are secured in accordance with “the principle of immunity.” Dr. H. H. Watters, of Boston, in an article in the December, 1908, *HAHNEMANNIAN MONTHLY*, regards this “principle of immunity” as identical with the principle of similars. I quite agree with Dr. Watters in his conclusion on this point. It seems to me it is eminently superfluous to multiply terms and explanations of a phenomenon which is clearly explainable by the homœopathic theory.

If a drug—a vegetable drug we will say—will produce in an approximately healthy human organism a certain set of objective and subjective symptoms which show a definite pathological tendency, and if in a diseased organism affected in a manner closely resembling the pathogenetic condition which has been produced by the given drug in the experimenter, and if by giving this drug the patient is cured, then surely the cure has been brought about in accordance with the principle of similars. In the case of serums—cultured toxins—the explanation is identical. A healthy human being is subjected to the toxin generated by the bacillus tetani, and a certain definite train of characteristic symptoms will follow. In another organism a similar train of symptoms exists. The toxin taken from the first mentioned sufferer and cultivated up to infinitesimal propor-

tions is then administered to the patient suffering from tetanus, and the result is a cure. If this is not homœopathy then what is homœopathy? We have reached a point in the field of drug pathogenetic experimentation—including serum experimentation—which brings us to the question whether or not all cures may not be brought about by the influence of the therapeutic agent upon the opsonic index of the organism.

Dr. Watters, to whom I have already referred, has submitted a record of a number of experiments which go to prove this very point, that the hypodermically used drugs lower the opsonic index of the organism into which they have been introduced. The cases he cites had the drug used hypodermically which seemed to be homœopathically indicated in the given condition, and the resisting power of the organism was strengthened—that is the opsonic index was raised—and as a result the patients were cured.

Dr. Watters bases his views on this subject upon a series of experiments made with various drugs including phosphorus, sodium sulphate, and hepar. In each case the opsonic index of the experimenter and also of the patient was investigated before and after using the drug, so that there was no chance of mistaking the influence of the drug upon the condition of the opsonin.

We may, therefore, conclude from actual laboratory experiments, endorsed and adopted not only by Sir A. E. Wright, of London, but by all authorities in the field of microscopic study that not only will cultured toxins through their influence upon the human organism bring about cures, but that drugs generally will act in the same manner, that this manner has been designated by Dr. Richard Cabot as “the principle of immunity,” and that these agents will produce curative results in microscopically infinitesimal doses.

Here we have experiments upon the healthy human being, which were suggested by Dr. Albert Haller, and first executed by Samuel Hahnemann, following which we have the results of these experiments applied to the healing of the sick, according to the law of similars, and finally not only are the cures brought about in accordance with the law of similars but through the use of the smallest amount of the drug that will cure. If this is not practically applied homœopathy with all its essentials, then what is it? When we add together the following facts it

would seem that at last the claim is justified that homœopathy is true, and that there is a demonstrable law of similars:

First.—The demonstration by Prof. Bailey, of Topeka, Kan., that a drug diluted up to a point somewhere between the twenty-fourth and thirtieth decimal dilution will, because of its presence, definitely cause the transmission of the electric current through the solution more rapidly than when the current is transmitted through distilled water.

Second.—The demonstration by more than one scientist, that a virus and a drug will each produce a definite train of symptoms in the experimenter.

Third.—The demonstration by many scientists that these same toxins and same drugs, will, respectively, cure conditions in the diseased similar to those which they will produce in the healthy.

Fourth.—Not only the clinical but also the laboratory demonstration that these agents produce these curative effects in infinitesimal quantities.

Fifth.—And finally, that these cures are brought about by an action common to both cultured toxins and drugs upon the life stream of the body, the blood.

The world of science indeed has cause for rejoicing. This ultimate culmination has been brought about through the methods of science, and Lord Bacon is justified, Robert Boyle is justified, Albert Haller is justified, Hahnemann is justified, science is justified, and this universal justification fully vindicates the believer in homœopathy throughout all time and makes of every man a practical homœopathist who applies a cultured toxin to the cure of disease.

HAHNEMANN'S LIBERALITY.—The father of homœopathy abandoned the path of old theories, and, whilst putting aside *specificism*, he saw that every morbid case manifested itself in its individual form, and every medicine was endowed with a characteristic physiognomy. Rejecting all useless, traditional classifications, he recognized and proclaimed, the most absolute decentralization and individualization in pathology.

If, after the discovery of his immortal doctrine, Hahnemann had been called away by death, he would not have carried his secret to the tomb, for he immediately made it a matter of conscience to publish his ideas, and to bequeath them to medical posterity.—*Conferences sur l'homœopathie Garnier.*

HYDROTHERAPY,

BY

R. MONTFORT SCHLEY, M. D., BUFFALO, N. Y.

PHYSICIANS who have cared for the nervous and insane without the use of either sedatives or hypnotics, know that there is an imperative necessity that something else be used in their place. In my experience water has been most valuable in this connection. I find that by using the same care in selecting my hydrotherapeutic measures, as I do my indicated remedy, the need of hypnotics has always been obviated.

We as homœopaths should be particularly interested in this subject, as we have here a means of helping our carefully prescribed remedy, without the danger of counteracting its effects by drastic drugs.

We are able, in part at least, to obtain nearly every effect with hydrotherapy that we can with any drug that is given for its physiological effect. Water carefully prescribed will act as a stimulant or a sedative. It can put a patient to sleep or keep him awake. It can act as a cathartic or a sedative to the bowels. Water will increase the temperature of the naturally cold, and, on the other hand, high temperatures are decreased by baths. Water judiciously used will act as a stimulant to the heart, lungs, liver, kidneys and intestines.

The limits of this paper will only allow me to give in outline the general effect of the use of hot and cold water, with a few of the simpler applications that can be employed by every physician at the home of a patient with the assistance of a nurse or some member of the family.

Almost every hydrotherapeutic measure can be given with a tub, a bucket, a basin and running hot and cold water. That is, if a well-fitted hydrotherapeutic room is not available.

The more I use water and the more I see its benefits, the more I feel that every up-to-date hospital should have a well-equipped hydrotherapeutic room; and where the physicians realize the benefits their patients receive from this department of the hospital, the hydrotherapeutic room will become self-supporting. The Massachusetts General Hospital, of Boston, has such a place; patients are sent in from outside by physicians who write a prescription for a hydrotherapeutic measure which

is carried out to the letter, the patient paying the hospital one dollar. There is sufficient work to pay the salaries of a competent man and woman, besides keeping up the room.

I will mention some of the general effects of the application of water.

Hot water first acts as a stimulant and excitant, but later as a depressant. The longer water over 100 degrees is applied, the greater the depression and the slower the reaction.

The higher the temperature of the water, the greater the first stimulating effect and the greater the following depression.

On the other hand, cold water, that is at 90 degrees to 32 degrees, is first a mild depressant and later a stimulant, depending on the temperature and length of application, if continued too long it becomes again a depressant. On account of the depressing first effect, care must be taken to examine the cardio-vascular system to see that no ill effects will follow a hydrotherapeutic procedure, as a weakened heart or arterio-sclerosis is a contra-indication for the more active measures.

The ability of the patient to react to the application of water is very important, and this can be readily obtained by Baruch's method, that is, by drawing the finger nail across the abdomen several times, at first lightly, then each time harder; the length of time it takes for the red lines to develop, is the index of the patient's capacity to react.

Friction of the skin, exercise, or the application of heat externally, as an electric-light bath or hot-air cabinet, increases the intensity of the reaction to cold applications.

If a general effect is desired, at least one-fourth of the body surface must be subjected to the action of water.

To quote from Schüller and Baruch:

"Metabolic changes take place more rapidly under heat applications than cold.

"Muscle tone is increased by cold applications.

"The nervous system is excited by hot applications but soothed by water at or near the temperature of the body.

"Both the red and white blood cells are relatively but temporarily increased by application of cold.

"The heart's action under cold applications is at first quickened, then slowed but strengthened, while heat acts reversely.

"Respiration is deepened under both hot and cold applications."

To intelligently apply water, we have to understand these

physiological effects, and after we thoroughly know our patient and the reason for his condition, we can rationally apply any measure we deem necessary.

I shall cite a few conditions in which I believe that hydrotherapy has been of great help in the cure of certain conditions that have been very rebellious to other therapeutic measures.

Every physician has had cases of anemia or chlorosis which would not respond either to our indicated homœopathic remedy, tonics or iron. By adding the intelligent use of water, we obtain almost an immediate response. I will not mention the other necessary factors we have to consider, as diet, ventilation, etc.

Select in a case of this type a hydrotherapeutic measure that will deepen inspiration, strengthen the heart's action and increase the metabolic changes. At the same time we have to be careful not to abstract too much heat. Start with a gentle rubbing of the entire surface of the body which is followed by a simple ablution. The patient stands in water at 100 degrees and he is rapidly bathed with water at 80 degrees, which is reduced each day two degrees, until 60 degrees is reached, following this the patient is rapidly dried, dressed warmly and sent into the open air. The patient becoming educated to stand this measure, others more severe in type can be added, as the drip sheet, wet pack, half bath and spinal douche.

I have found hydrotherapy of the greatest help in functional nervous diseases, such as neurasthenia, hysteria and epilepsy.

Neurasthenia is one of the chronic conditions that we have to face. If we can find anything to help us in its treatment, it should be received with open arms.

The depressed type of neurasthenia I start with a cold sponge bath in the morning and a tepid sponge at night. Cases of spinal irritation I give a salt rub to the spine followed by a spinal sponge.

The patients becoming stronger, they are given a rain-bath in the morning, a salt spinal-rub at ten A. M., in conjunction with a hip bath at 90 degrees and a spinal douche at from 80 degrees to 75 degrees, at a pressure of twenty to thirty pounds.

Only the mildest hydrotherapeutic measures can be borne in the irritable type of neurasthenia, as the nervous system being already over-wrought, any increased excitation aggravates the symptoms. Tepid baths at 90 degrees to 100 degrees and warm wet packs are the measures here indicated.

Patients with hysteria-major are started with a cold sponge bath in the morning and a warm pack at night to allay nervousness, as they become accustomed to hydraulic procedures, others more severe in type are added, as a half-bath. If a spinal douche is not available, pouring water over the back from a height of six feet is substituted. Massage should accompany all these procedures.

Epileptics I found were materially benefited by hydrotherapy. Treating them with the idea that elimination would be of benefit, the excretions were watched carefully; a hot bath at 110 degrees for one-half hour every night and a cold shower-bath in the morning, was found to markedly decrease the number of epileptic seizures. A decided improvement in their physical condition was also noted. I treated some fifteen cases in this way over a period of two years, and found that patients who had been having seizures at the rate of two or three each week, that is, one hundred in a year, had only thirty in a year. Not only their epilepsy was improved, but their mental and physical condition showed a marked betterment.

Constipation of the idiopathic variety, I have been able to cure without much difficulty. I endeavor to regulate the time of movement, which I precede by a sitz-bath at 90 degrees to 60 degrees from one to five minutes; also at bed time a compress to the abdomen at 50 degrees. At times I find it necessary to give the patient an enema of eight ounces of water at 40 degrees, to help stimulate peristalsis. Instead of the large warm water enemas which become in time as bad as the cathartic habit because they weaken and dilate the rectum, I advise the cold small enema, which increases peristalsis and stimulates the muscle coat. Remember that this treatment is only in conjunction and to assist the homœopathic remedy.

Sleep can be induced in patients who are more or less sleepless or whose sleep does not refresh them, by giving them a bath at 94 degrees to 100 degrees for thirty minutes before going to bed; or a cold foot bath at 60 degrees, the water to come about to ankles, then have the patient move the feet about, rubbing them against each other for ten minutes. Another method is a pack at 90 degrees at bed time, leaving the patient there for at least an hour wrapped so that he is warm but not hot. If sleep is induced while in the pack, he should be left there until he awakes. Hot milk should be given these patients before going to bed and every two hours while awake. Frequently gentle

massage and rubbings increase the patient's ability to sleep. The exciting cause for sleeplessness should be looked for and removed if possible.

In my State Hospital experience I have found hydrotherapy of benefit in almost every type of insanity, and particularly in the drug addictions, as morphine and alcoholism.

Many depressed cases were much benefited by cold applications, first sponging, followed in a few days by rain baths.

In excited cases of a hypermic nature, hot packs and baths, with cold applications to the head were most useful in allaying nervousness. On the contrary, cases of excitement accompanying run down conditions were given cold packs and cold shower and sponge baths.

The dementia praecox cases were improved by cold shower baths each morning, and if these were omitted many patients would ask for them.

In morphine cases it is my practice to take the patient off the drug from the first, and the effects of full baths at 102 degrees are astonishing, allaying the pains, restlessness and cold sensations, so that many patients go to sleep in the tub, where they are kept from one-half to three hours. On returning to bed they retain the effects for from one to two hours, when the bath can be repeated.

Nearly every case of delirium tremens I have been able to quiet by putting the patient in water at 100 degrees even when he was controlled by active hallucinations.

In closing, I would say that this paper was not written with the idea of bringing forward anything particularly new on a subject that has been so ably treated by men like Baruch and Weinternitz, but rather with the idea of stimulating an interest in those who never use this therapeutic measure, to a trial of its wonderful benefits, and those who do use it, to try it in more varied conditions.

I firmly believe it is one of the best friends we have to help our homœopathic remedy accomplish its work.

BLAMES SCHOOL SYSTEM FOR DEATHS.—Dr. Thomas Darlington, Commissioner of Health of New York City, states that heart disease among school children is greatly on the increase. Of the defective children in the schools that have been examined, 3,500 had heart disease in some form. During the past two years 1,234 children have died of heart disease and only 131 of these were under 5 years of age. With the beginning of school life the rate increased from 28 at the age of 4 years to 286 at the age of 15 years.

REPORT OF A CASE OF ADENO-CARCINOMA OF THE KIDNEY, NEPHRECTOMY; RECOVERY.

BY

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REISMAN tells us that true carcinoma developing from the adult epithelial cells of the kidney is rare, and when it does occur is peculiarly fatal. Recurrence after removal usually takes place promptly.

The case I wish to report probably began in the tubular epithelium and owing to its size and great destruction of kidney structure extended into the renal pelvis.

Mrs. G., aged 43 years, married, has always enjoyed good health till six months ago. In July, 1904, while jumping rope she tripped and fell striking heavily on her right thigh and back. The following evening she complained of pain and numbness of the hip and a tearing sensation in the upper right quadrant of the abdomen, after which she said she noticed a lump below the liver.

Within the past six months she has had considerable blood in the urine. At times she has passed a half pint of almost pure blood. She says her urine is never clear and often contains clots and jelly-like deposits.

Recently the stinging, burning pain with hæmaturia has become more marked. She had never passed a stone or gravel, and has never had any form of colic. Cachexia or anemia absent.

Examination reveals a displaced right kidney with marked bulging posteriorly between the crest of the ileum and first rib. There was tenderness, moderate rigidity, and flatness over the tumor.

The urine is dark red, opaque, and contains coagula; albumin is present in varying amounts.

The microscope shows numerous red blood cells, leucocytes and epithelia; also hæmatoidin and triple phosphates crystals.

Operation, December 15, 1905. An incision, eight inches long, parallel with the crest of the ileum and two inches above it, beginning at the twelfth rib posteriorly. The kidney was easily exposed and brought into the wound. Being cleaned of fat, it was found to be quite enlarged and fluctuating and the

peri-renal tissues cedematous. There seemed to be no extension beyond a well defined capsule.

After the removal of the tumor the specimen was sent to Prof. J. M. Van Cott, of Hoagland laboratory who reports as follows:

Examinations of sections from the kidney of Mrs. G., reveals an adeno-carcinoma. "I am of the opinion that the chances for patient's recovery are good owing to the fact that the renal capsule was intact and that the neoplasm had not reached the periphery of the cortex."

The patient made a prompt and uneventful recovery. She has gained in weight and is passing a satisfactory amount of normal urine. She has a good color and seems perfectly well.

It has been over three years since the operation and there are no evidences of any recurrence of the trouble.

PRURITUS ANI.—In Dr. Clarke's opinion, in the greatest number of these cases the dyscrasia is of a sycotic nature, and will best be met with sycotic remedies, for example, thuja or nitric acid. There was another remedy which he found of very great use, namely, phosphorus. Mr. Wright had mentioned radium in its external use. Almost every one of the conditions mentioned by Dr. Deane Butcher he (Dr. Clarke) had treated successfully with radium given internally. He had given it in single doses of the 30th dilution once a week or even went to the 20th decimal or the 6th, and he had found a number of cases of pruritus yield very rapidly to this remedy. He once had a patient under his care who, not getting better as quickly as he liked, went under light treatment. The light which did him the most good was the blue light. With regard to the case mentioned by Dr. Jagielski, he (Dr. Clarke) had found that excessive indulgence in sugar produced pruritus.—*The Journal of the British Homoeopathic Society*, April, 1909.

CARCINOMA OF THE UTERUS IN EARLY LIFE.—Carcinoma was formerly regarded as a disease of advanced life, occurring mostly from the fortieth year onward; but while the latter is the time when the disease is commonly encountered, we should remember that the earlier years of life are not necessarily exempt. This is emphasized by Engelhorn's report of the case of a nullipara twenty-three years old. Puberty occurred at eighteen years, at three weeks intervals, and often continued for fourteen days. In the treatment of the case the uterus was curetted, but at the operation it was evident that the cavity had not been entirely emptied. Total extirpation produced a specimen showing a nodule in the posterior wall of the uterus and projecting into the cavity. Typical carcinoma was found on microscopic examination.—*Beitrage z. G. u. G.* Vol. XIII, 278.

PERINEAL PROSTATECTOMY.

BY

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(Read before the Germantown Medical Society, May 17, 1909.)

MR. PRESIDENT AND GENTLEMEN:—In this paper reference will be made almost exclusively to the surgical treatment of enlarged prostate through the perineal route. My remarks will be based upon personal experience as well as observation of those who do considerable of this work.

Sooner or later the old man with an obstruction to the out-flow of urine must come to operation. He will be driven to this first, because of the discomforts and dangers attendant upon catheter life which he perhaps has lived for three or four years; second, on account of resultant infection of the bladder; and third, owing to urosepsis arising from diminished output of urea and retention of toxins. Should he decline operation he will die. It is true that he may die if he is operated, but as I will show later the mortality of perineal prostatectomy is even less than prolonged catheter life.

How then shall we operate? In other words, what method should we employ to remove this obstruction? Naturally, one would elect that which gives the best results, and which without complications or very few discomforts, will restore the patient quickly to a normal condition.

My personal experience, of which I will speak later, leads me to favor the perineal route, yet I am of the opinion that the testimony of others should be taken very seriously into consideration, and with that end in view I will quote very liberally statistics from Watson and Cunningham's recent work on genito-urinary diseases. The table on next page speaks for itself.

Seven collaborators find this mortality for perineal prostatectomy:

	Cases.	Deaths.	Mortality, Per cent.
Watson, 1904	530	33	6.2
Escat, 1904	382	42	11.0
Proust, 1904	813	57	7.1
Tenney and Chase, 1906	617	46	7.6
Proust, 1906	1,192	79	6.6
Watson, 1906	1,000	61	6.1

[A statement of personal results of individual operations is also appended.]

Age	Doctor	History	Operation	P. O. Condition	Mortality	Cured	Improved	Results
65	Haller	Catheter Life 3 years Cystitis	P. P.				1	Incontinence Sexual Weakness
70	Youngman	Catheter Life 3 years Contracted Bladder, Cystitis	P. P.	Epididymitis			1	Perineal Fistula
62	Youngman	Catheter Life 1 year Cystitis	P. P.			1		
71	Le Comte Abbott	Retention Urine	P. P. Circumcision	Epididymitis		1		
60	Ganns	Cystitis	P. P.			1		
62	Schwartz	Hematuria Cystitis Carcinoma of Bladder	P. P. Removal of Tumor		1			
80 61 63	Bernstein	2 cases Catheter Life 1 case Stone	P. P. 3 P. Lithotomy			3		
68 60 62	Raue	Cystitis Catheter Life	P. P.			3		
66	Sloan	Cystitis Catheter Life	P. P.			1		
60	Harris	Cystitis Abscess R. Testicle	P. P. Orchiectomy			1		
74	Gumbrecht (Hallinger)	Cystitis	P. P.	Epididymitis		1		
91	Marsden	Cystitis	P. P.				1	
90 62 68	Maguire	Cystitis 3 Stone 1 Catheter Life 2	P. P. 3 P. Lithotomy			3		
70	W. James	Cystitis Contracted Bladder	P. P.			1		
66	Williams	Cystitis Hydrocele	P. P. Volkmann				1	
92	Mullen	Stone Catheter Life 4 years	P. P.		1			
60	Lukens	Cystitis Stone Catheter Life	P. P. Perineal Lithotomy		1			
72	Roberts	Cystitis	P. P.			1		
78	Jackson	Cystitis Catheter Life	P. P.			1		
82	Chase	Cystitis	P. P.			1		
91	Innes	Cystitis	P. P.			1		

Hospital 33 cases, Mortality 1.

Total: Private Practice 3 deaths in 27 cases, Hospital 1 death in 33 cases—4 deaths in 60 cases, Mortality 6 $\frac{2}{3}$ per cent.

The above report refers to private cases only. Hospital ones are not appended.

	Cases.	Operative Mortality, Per cent.
Young, 1906	150	4.6
Ferguson, 1906	103	3.6
Goodfellow, 1905	78	2.5
Albarran, 1906	73	4.0
Hartmann, 1906	56	9.0
Watson, 1908	66	8.0
Pauchet, 1906	53	7.0
Legueu, 1906	45	8.8
Murphy, 1904	51	3.9
Mayo, 1906	59	5.0
Rafin, 1906	32	6.2
Syms, 1904	34	5.6
	800	*6.1

Compare these figures with the operative mortality of total:

SUPRA PUBIC PROSTATECTOMY.

	Cases.	Mortality, Per cent.
Watson, 1904	243	11.3
Proust, 1904	244	12.0
Escat, 1904	164	18.0
Tenney and Chase, 1906	396	9.8
Freyer (personal cases), 1906	350	7.3
Watson, 1906	406	9.5

It will be seen that Perineal Prostatectomy has an average mortality of 6.1, Supra Pubic 9.6. The best individual results obtained by an advocate of the Supra Pubic Method are the following.

	Cases.	Mortality, Per cent.
Freyer	350	7.3

Whereas, the advantages of Young's statistics for Perineal Prostatectomy can be seen by the following:

	Cases.	Deaths.	Mortality.
Young	128	0	0

*Average mortality per cent. for the whole number.

To be complete, I have copied their table of operative dangers attending all operations:

OPERATIVE DANGERS.

	Cases.	Deaths.	Mortality, Per cent.
Palliative operations for drainage	146	49	33.0
Bottini operation	1,164	69	6.3
Total perineal prostatectomy	1,000	61	6.1
Total supra pubic prostatectomy	406	38	9.6
Combined supra pubic and perineal	157	13	8.2
	2,873		
Catheter life	207	16	7.7

The technic of perineal prostatectomy, as I practice it, is, in the main, the operation of Gouley, except in pre- and post-operative details to which, I may say, I owe my low mortality-rate. I have long since, after several trials, given up extensive dissections of the perineum for prostatectomy, such as practiced by Young and others.

The pre-operative treatment to which all of my cases are subjected, consists of rest in bed for two days, a daily cleansing bath, moderate diet, plenty of water, and the administration of five grains of urotropin three times a day. During this period a catheter is usually tied within the bladder and that organ irrigated morning and evening, with a 1-4000 solution of protargol. This usually aids in maintaining or restoring bladder contractility. [When stone is suspected or when the catheter cannot be borne because of irritation, the introduction of the latter and the irrigations are omitted.] Rectal enemas are given daily. The night before operation the pubes, perineum and scrotum are shaved and a dry aseptic dressing applied. The catheter is not removed until the morning of operation, the bladder first having been irrigated. A glycerine and water enema is given six hours before operation.

It is advisable to anesthetise the patient on the operating table, thereby doing away with anything which may promote shock, which is a factor we must take into consideration in these old men. The patient is placed in the lithotomy position, and the perineum, scrotum and pubes are cleansed with alcohol. Any abrasions of the skin are touched with tincture of iodine.

The first step of the operation is exactly similar to that of perineal cystotomy. The incision, the lower end of which is three-fourths of an inch above the anal margin is made in the median line onto a grooved staff in the urethra, and should be

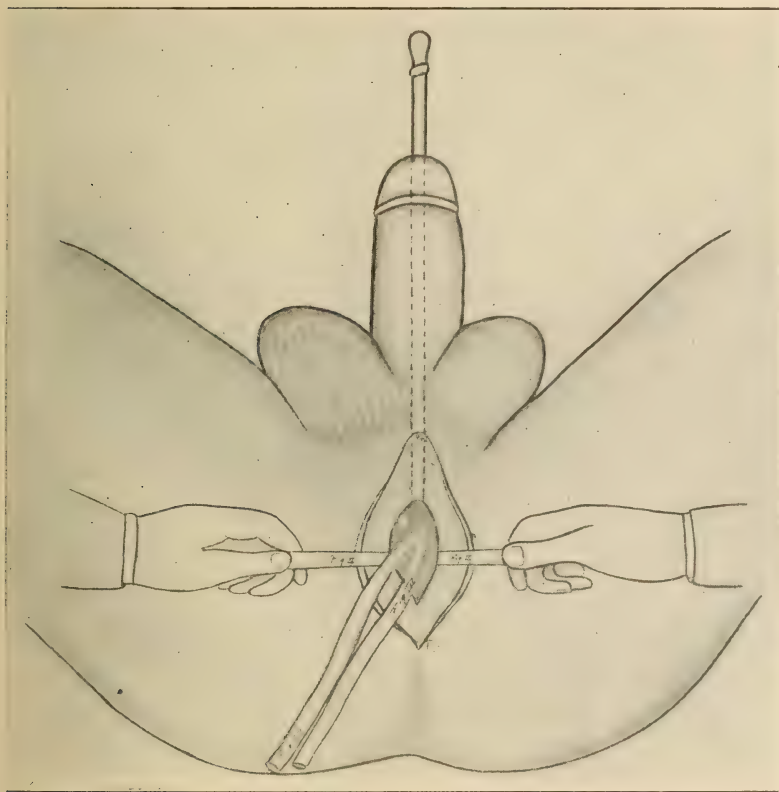


PLATE I.

FIG. I. LINE OF INCISION. FIG. II. WOUND RETRACTED. FIG. III. DRAINAGE TUBE.

about one and one-fourth inches long—it is unnecessary to make a longer one. If this precaution is faithfully carried out there will be very little danger of hemorrhage, and, what is more important, the danger of incontinence of urine will be very slight. It must be understood that the compressor urethrae muscle is the true vesical sphincter, and as long as this is

neither cut nor injured the function of urination may be held under control.

The bladder is then entered and explored digitally, the staff having been previously removed. Supra-pubic counter-pres-



PLATE II.

FINGER ENUCLEATION OF THE LEFT LOBE.

sure facilitates this procedure. The enucleation is then commenced, and is best done by inserting the right fore finger in the wound, palmer side up always, and hooking the end of the

finger in the right prostatic lobe. Great care must be exercised in this finger dissection, and pains taken always to have the finger palmar aspect upwards; otherwise the tissues overly-

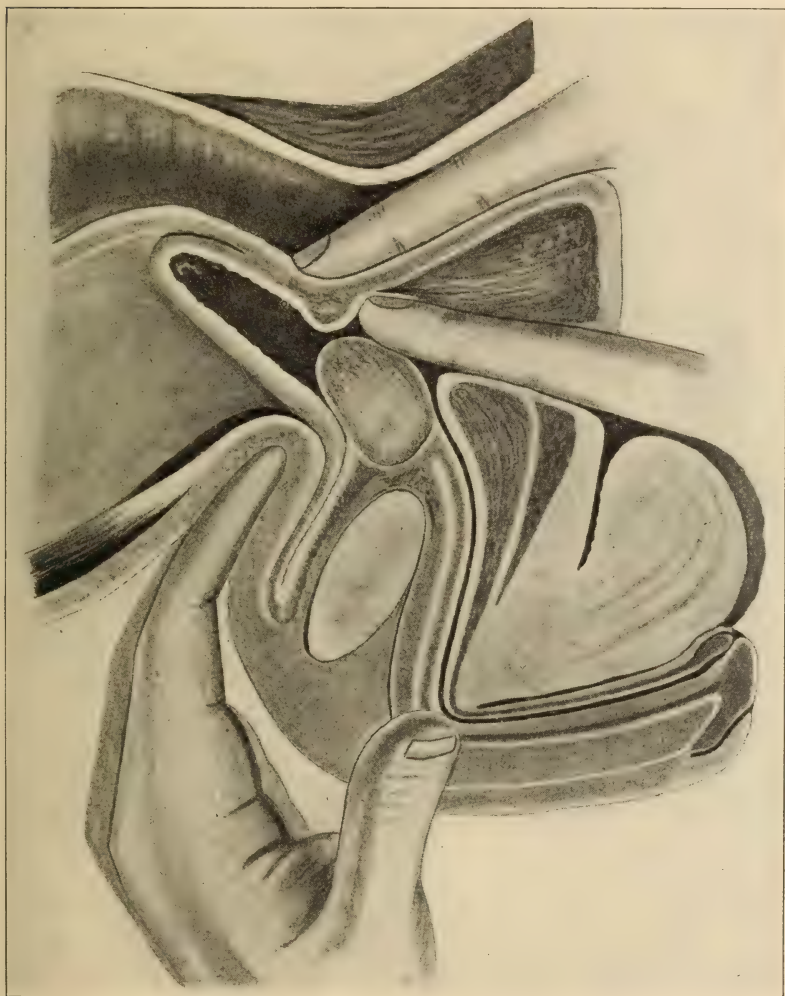


PLATE III.

SUPRA-PUBIC COUNTER PRESSURE.

ing the rectum may be torn and a fistula result. The length of time necessary for enucleation depends upon the extent of the overgrowth and upon the distance it projects into the bladder.

Sometimes the intimate attachments between the sheath and the surface of the prostate makes enucleation very difficult. Rapidity is accomplished by supra-pubic counter-pressure, and the fortunate possession of a long narrow fore finger.

Having freed the lobe, it may be removed by means of Young's forceps. The next step consists in removing the left

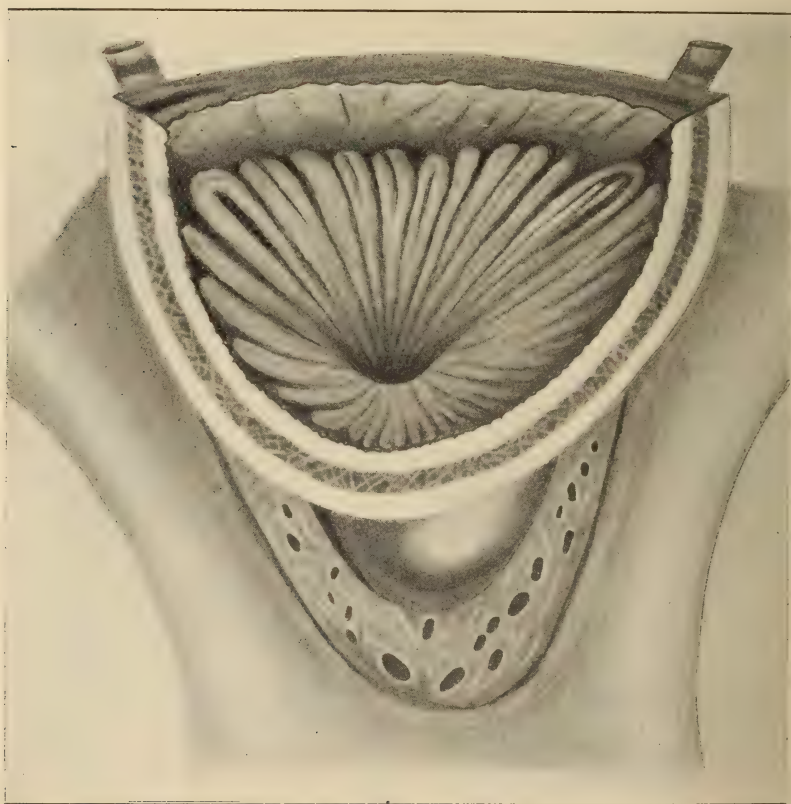


PLATE IV.

NECK OF THE BLADDER.

lobe, then the middle one. The order of removal, however, is merely a matter of choice; my usual custom is to attack the right first. Stone, if present may then be removed by a scoop or lithotomy forceps or, if too large, crushed and then removed. The neck of the bladder is now gently grasped with

the forceps and downward traction made upon it. This procedure invariably controls whatever hemorrhage may be present. We know that sometimes the venous plexus about the neck of the bladder and prostate furnishes considerable bleeding, and this technic obviates this unfortunate complication.

Young's double-drainage tube is now inserted into the bladder and that organ irrigated with a normal salt solution at a temperature of 110 degrees. The wound is then lightly packed with iodoform gauze, a suitable perineal pad applied, and the patient returned to bed. Here it may be necessary to infuse, or to stimulate, but such may indeed apply to any operation.

It is necessary to dwell somewhat upon the technic of post-operative irrigation. I use Baer's method. The apparatus consists of an irrigating jar—capacity two gallons—to which is attached a six-foot rubber hose on the end of which is fitted a glass nozzle. Another rubber hose three feet long, to one end of which also a glass nozzle is fitted, a slop-jar and a hemostat complete the outfit.

The irrigating jar is placed about three feet above the patient's head and its tube connected by means of the nozzle to the shorter end of the double-drainage tube in the bladder. The shorter tube is fastened in the same manner to the longer end of the drainage tube and its free end placed in the receptacle under the bed.

The hemostat is used to control the flow of the fluid from the jar and after a little practice can be so placed that the jar will empty itself in twenty-five minutes. The tube leading from the bladder to the receptacle under the bed may become clogged from blood-clots, either at the vesical extremity or at the connection with the outlet tube. If the blood-clot is in the drainage tube take a four-ounce metal syringe, and by suction, withdraw it. If the clot is in the tube which goes into the receptacle remove the same and cleanse. Throughout the irrigation, the tube leading into the bladder should be examined every fifteen minutes. This continuous irrigation should be commenced soon after the patient is returned to bed and should be practiced for twenty-four hours, after which it may cease. This is omitted only in the event of severe shock.

This apparatus prevents the necessity for the patient remaining upon his back for twenty-four hours—indeed, he may be turned from side to side during the procedure. It is remark-

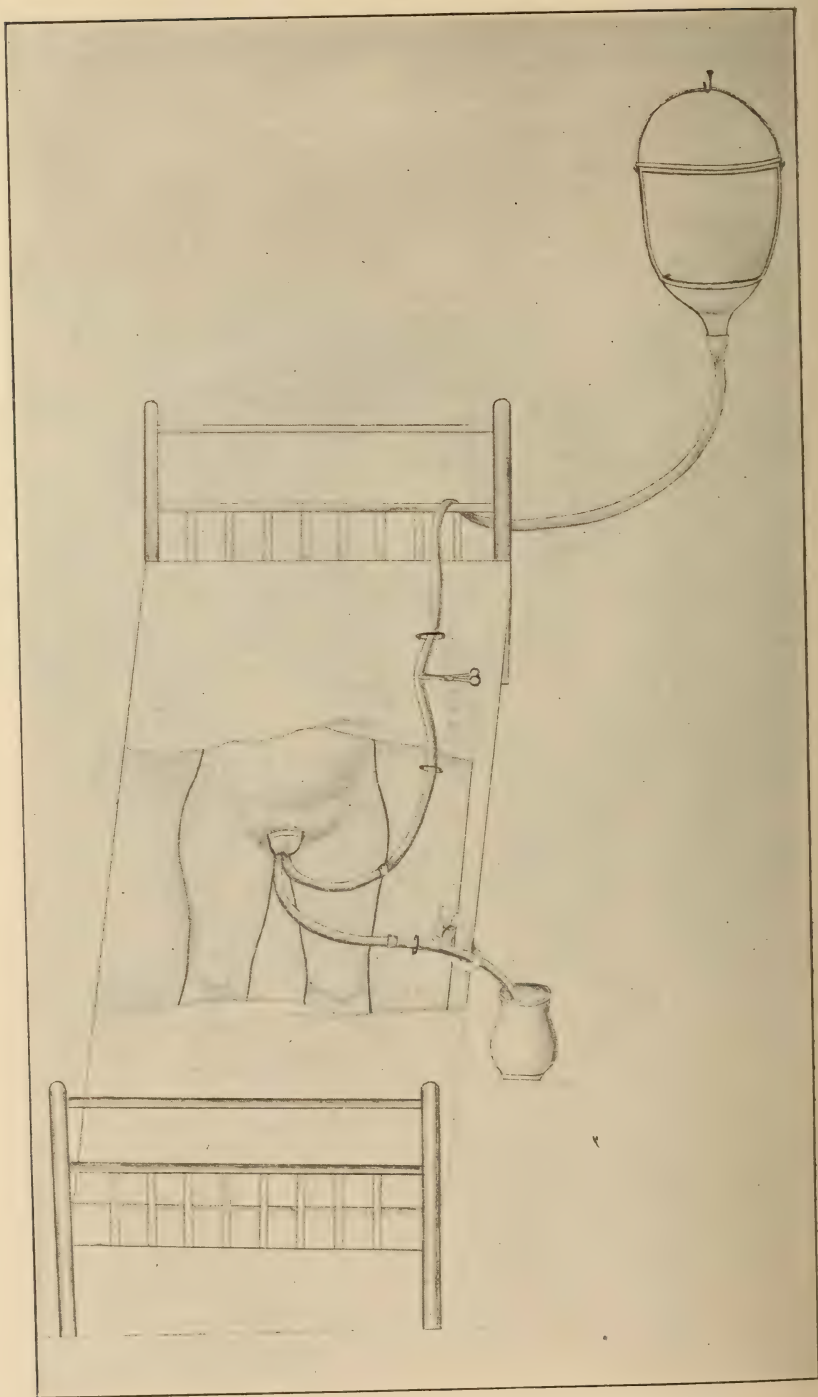


PLATE V. IRRIGATION APPARATUS.

able how very little discomfort is experienced from its use, but, if present, it may be controlled by morphia.

The diet for the first twenty-four hours must be liquid. Forty-eight hours after operation the double drainage tube is removed, and no drainage tube whatever is kept in after this time unless advanced cystitis be present when a single drainage tube is inserted and allowed to remain in perhaps two days more. A more extended experience with the drainage tube leads me to believe that its early removal facilitates bladder contractility, closure of the perineal wound, and a quick return to normal urination. The majority of my patients are propped up in bed on the fourth day, and out of bed for a short space of time each day after the first week, and from this time on they are encouraged to remain out of bed. This is done with a view of obviating the tendency to hypostatic congestion. I usually defer passing a sound until the fourteenth day by which time with proper attention to the details, which I will enumerate, the urine is usually voided naturally.

Where shock and sepsis occur one has to use therapeutic ingenuity to combat these conditions, employing strychnine, digitalis, morphia, adrenalin chloride, high saline enemas.

Thus far I have outlined the usual treatment of an uncomplicated case, but all cases are by no means as ideal as the one which I have described, and one should always be alert to avert the complications which may arise in perineal operations. These are: first, injury to the sexual apparatus; second, wounds of the rectum with their resulting fistulae; third, frequency of urination and incontinence of urine and cicatricial contraction of the urethra; fourth, residual urine.

Let us discuss them in their sequence. In the majority of my cases the only complications which I have had have been delayed urination, incontinence of urine and epididymitis. Let us consider how to avoid these. With the view of preventing epididymitis the scrotum is very carefully strapped immediately following the introduction of the drainage tube. This strapping is maintained through the entire convalescence. I have seen enough of these cases and their results to know that epididymitis in these cases need not be considered a factor. The question of sexual impotence is still sub-judice. Young's operation is not so practical as one is led to suppose. It is indeed a chance whether the ejaculatory ducts are injured or not by any operation upon the prostate. Moreover, if they are it is not very

serious to men of very advanced years. In the cases which I have operated I have had very little complaint upon this source. Incontinence of urine and cicatricial contraction of the urethra may be avoided by Alexander's method of bladder gymnastics. Forty-eight hours after operation he inserts a Mercier catheter per urethram, irrigating the bladder with sterile water, subsequently injecting a half dram of a 20 per cent. solution of argyrol. The catheter having been withdrawn the patient is requested to urinate; the act is interrupted by a command from the surgeon requesting the patient to stop voiding urine. This having been done, within a half minute he is again instructed to recommence, then stop, and so on until the act is completed. [It is remarkable how quickly the urine comes through the natural channel.] This treatment is carried on daily. By this means incontinence and cicatricial contraction of the urethra are avoided.

Residual urine sometimes results where there is extreme atony of the bladder. This, too, may largely be overcome by the bladder gymnastics just mentioned.

Wounds of the rectum with their resulting fistulae may be avoided by the precaution I have suggested while removing the prostate and by paying particular attention to the treatment of the perineal wound immediately after the removal of the drainage tube. The method which I follow is irrigating the wound with sterile water, thereafter crowding at least a half of a dram of a 10 per cent. emulsion of iodoform in vaseline directly into the wound and then gently packing the wound with iodoform gauze; oxide of zinc ointment is next smeared over the perineum, scrotum and anus, this doing away with the eczema medidans too frequently associated with this condition; then the perineum and buttocks are carefully wrapped in sterile gauze, covering with liberal quantities of absorbent cotton. For the first forty-eight hours following the removal of the drainage tube these procedures are repeated every three hours in their minutest details. After that, however, dressings need be made only twice daily. As soon as the perineal wound shows signs of healthy granulations then the margins are painted with a 1-1000 solution of protargol and packed with iodoform gauze. The prevention of fistulae is accomplished by these methods, and by always seeing that the surface of the perineal wound is everted rather than inverted. It is true that this is a very tedious procedure, but careful attention to details

makes this operation the successful one for enlarged prostate; it results in complete cure of the patient. The smallest operative mortality as yet attained in any of the operative methods has been in perineal prostatectomy. It supplies free drainage of the bladder by observing the laws of gravitation. It has a small percentage of failures and a large one of cures. To support these facts Cumston (*American Journal of Urology*, August, 1906,) says: "In considering the proper radical operation to select it appears to me that perineal prostatectomy is by far the surest manner of placing the bladder at rest, thus doing away with the hyperæmia of the entire urinary tract, stopping the pain, bringing down the temperature and helping the kidneys. Cases are now no longer wanting in which prostatectomy has been followed by most favorable and satisfactory results in chronic retention, severe pain or an impossibility to pass the catheter, all conditions where it is most legitimate to operate. In a large number of these cases the faculty of spontaneously emptying the bladder returns, micturition is easy and the bladder may empty itself almost completely, while in the less brilliant instances some residual urine still remains, but the urine becomes clear and the cystitis disappears."

That perineal prostatectomy is indicated, will be seen, too, when we recognize that the offending lobe is usually the middle one which may easily be enucleated through the perineal route.

Thus far I have said nothing about my personal results.

A study of my cases will show nearly all had been leading a catheter life, and were more or less infected. Some were very old, two over 90, two 80, many in their 70's.

Number operated:—

In hospital	33
Private practice	27
	— 60
Cured	53
Improved	3
Deaths immediately following operation from shock	2
Death resulting from uræmia and sepsis	2

CASES IN WHICH AN ADDITIONAL OPERATION WAS DONE AT TIME OF PROSTATECTOMY.

Removal of carcinoma	1
(This accounted for the first death.)	
Removal of stone in case, 92 years of age	1
(This accounted for the second death.)	

Calculus	3
Circumcision	1
Hydrocele	1
Orchidectomy	1

POST-OPERATIVE COMPLICATIONS.

Epididymitis	4
Perineal fistulæ	1
Incontinence of urine	3
Sexual weakness	8
Residual urine	4

Conclusions.—Early operation is to be advised because of the dangers associated with catheter life. Operation should be done early in hard prostates, since it has been shown that 10 per cent. of all cases show some evidence of malignancy. This may account for the lack of improvement following operation in some cases. All enucleated lobes should be sent to a pathologist for examination. Perineal prostatectomy should not be denied the very old and infected man. He will surely die unless operated, and may recover as a result of the same.

CORRESPONDENCE.

EDITOR HAHNEMANNIAN MONTHLY:

It may be well to call attention to the omission of a very useful drug in urticaria, not mentioned in the excellent article by Dr. Monroe in the May issue of the HAHNEMANNIAN MONTHLY. The drug is Croton tig.

Several times I have produced urticaria in peculiarly sensitive patients, when giving the 3x of Croton tig. for some other purpose than urticaria.

Conversely, for the most intensely itching wheals and blotches, worse from severe scratching, better on rubbing softly, and very persistent at night, Croton tig. is a remedy to give satisfaction: 3x to 6x, 10 drops to one-third glass of water, teaspoonful dose every 1 to 3 hours. On the other hand, I have seldom experienced anything but disappointment in using it in eczema, moist or dry.

M. W. VAN DENBURG, M. D.

EDITORIAL

BUSINESS MATTERS FOR THE CONSIDERATION OF THE AMERICAN INSTITUTE OF HOMŒOPATHY.

PROBABLY the most important matter for the consideration of the American Institute of Homœopathy at its coming annual session to be held in Detroit, is the acceptance of the recently granted charter of incorporation and the new constitution and by-laws. The propriety of incorporating the Institute is so evident that the acceptance of the charter will be a mere technical formality.

The framing of a new constitution and by-laws will prove to be a difficult matter notwithstanding the fact that the matter is in the hands of a very capable committee. To appreciate the difficulties, one must realize that when the Institute meets, there will be two associations, one incorporated, the other not. The former is generally regarded as the successor of the latter. To be so in fact, however, it must assume all the responsibilities of the original organization. This we presume should mean that it must work under the old constitution and by-laws until amendments are made according to the rules governing the same. Referring to the Transactions we find that the constitution can "be altered or amended by a vote of two-thirds of all members present at the regular annual meeting, providing that notice of such alteration or amendment shall have been given in writing at any meeting of a previous annual session of the Institute." Amendment of the by-laws can only be made when notice is given in writing at the *previous* annual meeting.

We understand that the new constitution and by-laws have been prepared, and will be presented for acceptance or consideration at the afternoon session of Monday, in other words at the earliest session of the convention. To this course there are serious objections. In the first place, if the new constitution is to present any radical alterations of the old, the matter should not be considered precipitously. We should adhere to previous customs, and require the usual notice of at least one year and

the two-thirds affirmative vote. It is true that the incorporated body being an entirely new organization, the various articles may be passed legally by a majority vote. To insist upon the two-thirds vote will demand that the entire time of convention week be spent in debating the new rules, if indeed it does not prove impossible to reach any conclusion. Again, the consideration of this all-important subject at an early session when the attendance will be by no means the best of the week, is not the wisest plan possible. To our mind, the incorporated body being the successor of the Institute, the former should accept the constitution, by-laws and standing resolutions of the latter *in toto*, after which changes should take their regular course.

Next in importance to the Institute constitution and by-laws comes the ratification or rejection of the journal contract. The May number of the *HAHNEMANNIAN* contained the publication which was sent to us as a copy of the contract between the Journal Committee and the Medical Century Company together with an open letter on the subject from Dr. Fisher. This contract has also received comments from our esteemed contemporary the *North American Journal of Homœopathy*. It is needless for us to review what has thus been presented. Remarks made by us, must be regarded as additional thoughts on the subject.

The editor of the *North American Journal of Homœopathy* is authority for the statement that the Medical Century Co. claims the monthly number of copies of the *Journal of the American Institute of Homœopathy* is 5,000, *i. e.*, 2,500 in excess of the number ordered by the Institute. Let us follow the statement of the New York editor and say that 2,000 of these are paid subscribers at three dollars each. According to the terms of the contract, the Medical Century Co. must pay to the Institute treasurer one dollar for each one, or two thousand dollars. This will be a handsome contribution to our national treasury.

One of the arguments advanced for establishing a journal was that it would lead to increase of Institute membership. Now here are 2,000 subscribers paying three dollars each. By paying five dollars each, *i. e.*, by each paying an additional two dollars, they become members of the Institute. The Institute thus obtains additional receipts amounting to \$10,000. Of this it must pay the Medical Century Company two dollars per head for such members as its present allotment of journal

copies will not provide. The Institute contracted for 2,500 copies. Its total membership we understand is 2,000. With these figures, the Institute should pay the Medical Century Company \$3,000, leaving a net profit of \$7,000, which as we shall show presently our treasury needs in the worst possible manner. This is the bright side of the question.

But there is another: Thrifty men will say we can get the proceedings for three dollars; why spend two dollars more? Of course their position is untenable; but the world contains many unreasonable people. Should many take this position, the Institute will go into bankruptcy. This difficulty can be corrected very readily by insisting that the Journal's subscription price shall be not less than Institute dues. In that case, all the extra 2,000 subscribers will go into the Institute at once!

Having disposed of this part of the business so satisfactorily, we shall proceed.

Article 2 of the contract provides for a journal of 48 pages "suitably bound without colored cover." Two objections stand against this article. It should be made to read to contain "48 pages monthly or as much more as may be required to publish the *entire* proceedings of the American Institute of Homœopathy and its allied societies." Our personal preference would cause us to contend for a proper cover paper without advertising on first page after the style of our leading journals published in Boston, New York, Chicago, Philadelphia and elsewhere.

Articles 3 to 5 inclusive relate to the mailing of copies of the new journal, and need not concern us.

Article 6 should be made to read "To furnish illustrations as required by contributors, but such illustrations must be plain black and white, and never in colors." Restricting illustrations to \$100 per annum is an absurdity. The HAHNEMANNIAN has always furnished illustrations as required by authors without question, and has on two occasions expended over twice this sum on the illustration of a single article.

Article 7 should be amended to provide for the proper kind of an index, such for example as that printed at the end of the annual volume of the HAHNEMANNIAN. The Institute Transactions have always been poorly indexed. In confirmation of our statement, let any of our readers refer to his Transactions and see for himself. In a volume of such importance, every subject should be indexed and cross indexed; indeed, triply and quadruply indexed if necessary.

Article 8 has received comment from Dr. Fisher.

Article 9 is not strict enough. It is very easy to get advertising matter in the reading pages without violating this article. An alleged news item or contributed article can do the trick.

Article 10 is very good in its intent, but is a little lax in its phraseology. We have already commented upon this article in our opening remarks on the journal question:

Article 11 allows too much latitude for the time of publication. Inasmuch as the new journal receives all of its manuscript immediately after the annual meeting, there should be no reason for delaying its monthly publication any later than the first of the month.

Article 12 should be made to read that on the completion of the term of years for which this contract is made, the "American Institute of Homœopathy shall be free to make a new contract with the Medical Century Company or with whomsoever it sees fit, and that the Medical Century Co. shall be privileged to renew the publication of the *Medical Century* to such members of the medical profession as wish to subscribe for it, and that the Medical Century Co. shall deliver to the Secretary of the American Institute seals and all official property and archives that may be in its possession, and all this without any expense to the American Institute of Homœopathy." We happen to hold documentary evidence which goes to show that at the present time one member at least regards 49 per cent. of the journal franchise as worth just \$2,500. Just think of the Institute being obliged to pay the Medical Century Co. \$5,000 to regain nothing but its seal of approbation, with which it had previously parted without financial consideration. The Institute gave the Medical Century Company all it had to give. The Medical Century Company got all it wanted, and the Medical Century Company gave up nothing.* So why should the Institute be called upon to pay for regaining its property?

So much for the assumed responsibilities of the Medical Century Co.

The American Institute of Homœopathy as party of the second part agrees in article 1 to subscribe for 2,500 copies for which it will pay \$5,000 per annum. Referring to the Transactions for 1906, Volume 1, p. 720, the Institute paid for printing and binding Transactions, \$2,897.58, and for distributing

*Capable of documentary proof.

same by express, \$675.89. Total cost of Transactions \$3,569.47; which is just \$1,431.53 less than it is to pay the Medical Century Co. for publishing only its papers. In the 1907 volume of the Transactions, p. 3, Treasurer's Report, we find that the bill for publishing the proceedings of 1906 was unusually heavy because of the enormous mass of material presented. This was the year of the World's Congress. With all this greatly added expense, the printing, binding and delivery of the Transactions amounted to \$4,818.85, or only \$181.15 less than \$5,000.00. The amount of material presented that year could not possibly be printed in a journal of 48 pages monthly. In 1904 (Transactions, p. 55) the amount paid for publication and distribution was \$3,465.39, or \$1,534.61 less than the Institute will pay the Century Company.

The Institute has not sufficient funds on hand to pay \$5,000.00 according to the terms of this contract, unless it realizes on the 2,500 non-member subscribers of the Journal. If it can so realize, then this argument of "not money enough" falls to the ground.

The Institute receipts in 1904 were \$7,304. In 1906, \$8,188.00. In 1907, \$7,924.00. The volumes for 1905 and 1908 are not available. Those who wish can refer to them. It will be seen from this that the Institute cannot, unless its receipts increase, have more than \$3,000 available for such regular expenses as recur year after year as the following items of the 1907 report: Committee of Organization, Registration and Statistics (this item runs over \$408 annually), Committee on New Members, \$92.50; Hahnemann Monument Committee, \$50; President's expenses, \$89.43; Secretary's salary, \$1,000; Stenographer's fees, \$654.90; Secretary's postage, \$50.00; Treasurer's expenses to meetings, \$166.48; Treasurer's postage and sundries, \$247.59; Registrar's expenses, \$30; Safe Deposit Vault, \$70; Treasurer's Bond, \$40; Membership certificates, \$54.85.* To these items must be added as an annual charge the printing of the report of the Committee of Organization, Registration and Statistics, minutes and business meetings, lists of members, constitution and by-laws, etc., which may be estimated as costing at the lowest about 20 per cent.

*It is remarkable how closely the expenditures on these various items coincide year after year. Estimates for one year can be taken as correct for the next, allowing for a natural increase attendant upon the management of a growing organization.

of the total of each volume of Transactions. Thirty per cent. will probably be nearer the truth. The total of these items in 1907 was \$2,953.75, to which if we add \$5,000 for the Journal, there will be a deficit of \$29.75. This does not take account of the publication of the volume for which the Institute contracts, and which should cost about \$800.00 at the lowest estimate. This estimate of expenses takes no cognizance of such occasional expenses as Transportation Committee, Interstate Committee, Memorial Committee, Executive Committee, Sundry Printing, Institute Buttons, Exchanges on checks, etc. Can the Institute stand this expense?

Article 5 takes from the Institute the right to appoint a new editor should occasion demand one.

An unethical advertisement is defined in the contract as one which promises to do the impossible. It is possible to cure inebriety. Keeley Cure promises to cure inebriety, but inasmuch as such a promise is not *impossible* of fulfilment, the advertisement of the Keeley cure in the *Journal of the American Institute of Homœopathy* meets with the sanction of its governing powers. Is it true that physicians have been expelled from medical societies for unethical conduct, such conduct consisting of practising "The Keeley cure"?

There is much more to be said on this subject; but our space forbids, as we have presented sufficient facts to show that the Institute should either publish its own journal and control the same entirely, reaping any profits that may come from the same, or continue as it has in the past.

POSTSCRIPT.—Since the above was written, the report of the minutes of the 1908 session and the report of the Bureau of Organization, Registration and Statistics have been received. The whole makes a handsome volume of about 400 pages.

From the Treasurer's report, p. 38, we learn that the receipts for the year were \$7,935. In other words, the receipts were just about the same as those for each of the previous five years. Notwithstanding the steady increase in membership the income does not increase. This is a serious matter.

The total membership of the Institute is over 2,300, of which about 250 are senior members and are exempt from dues. This leaves somewhat over 2,000 paying members from whom we should receive not less than \$10,000. There is over \$2,000 due us and probably very much more. It would seem that

somewhere between 300 and 400 members are in arrears. In the absence of any definite information from the Treasurer as to the number of years owed by each member in arrears, the total number of delinquents and the total sum owed by them cannot be stated.

The existence of numerous delinquents on a Society's books is not by any means an unmixed evil. From a business standpoint, they constitute an asset. True, we would rather have cash in bank; but as human affairs go, delinquents are like the poor, always with us. If we force collections this year so that receipts go to \$10,000, the latter will fall off the next two years. Every business depends for its cash in part upon overdue accounts. In the long run, things "even up."

We find furthermore that the total expenditures aside from those incurred in printing and distributing the Transactions amounted to \$3,948.96. Add to this amount \$5,000 paid the Medical Century Co., and we have \$8,948.96, or a deficit of \$1,015.96. Add to this the cost of issuing the annual volume including reports of minutes, etc., which we estimate to be not less than \$800, and we have a deficit of \$1,815.96.

The total cost of distributing and printing the Transactions for 1907 amounted to \$3,770.41, which is just \$1,229.59 less than we pay the Medical Century Company for printing the papers only. Inasmuch as the Century Company will pay but one cent per pound for distribution, while we pay eight cents per pound, we may add to the \$1,229.59, \$700, making the apparent net profit to the Century Company \$1,929.59. This leaves that company the profits to come from its advertising as so much additional "velvet." Then, as we scan the Treasurer's report, we find that the Institute bears all the expenses of sending out and receipting bills, obtaining new subscribers, miscellaneous printing, etc., and we see at a glance the extravagant character of the contract made on our behalf by our Journal Committee with the sanction of the Executive Committee.

To add to our misfortunes, the Treasury already shows a deficit owing to the failure of the Knickerbocker Trust Co. But this difficulty will probably have been overcome by the time we meet in Detroit.

As a business matter, we might ask if the Medical Century Company is incorporated? If so, what is its capital? If it is not incorporated, what are the financial liabilities of its component parts? What protection has been given the Institute in

case of the publication of a libellous advertisement or essay? This is not an imaginary fear for scarcely a journal in the country has escaped just this difficulty.

The new constitution and by-laws may provide for greater revenue. The Institute may exercise its right to abolish the by-law which exempts the senior members from paying dues. Such a course, however legal, cannot be regarded as honorable, as members were admitted with the understanding that they could go on the free list after 25 years. The vast majority would undoubtedly be willing to give up the compliment in case of necessity, but they certainly should not be made to do so in order to carry out the extravagant contract which we have criticised so freely.

In conclusion, let us advise that the Institute keep its own journal. If the franchise can be made profitable to an outside concern, the Institute cannot afford to part with it. If it cannot be made profitable, the company to which we lease it, will go into the hands of a receiver. To us it looks like a clear case of "heads you win; tails we lose."

RECENT WORK ON APHASIA.—Apropos to the present controversy on aphasia, James Collier summarizes the history of this symptom complex and reviews the arguments of the controversialists. Despite the efforts of Marie, Montier and others to prove that aphasia is not the result of disease of Broca's convolution, the author is convinced that this area of the brain should still be regarded as the motor speech centre. This conclusion seems strengthened by the evidence that has accumulated recently showing that apraxia, the analogue of aphemia is dependent upon lesions of the first and second left frontal convolutions. The writer remarks that "motor aphasia bears the same relation to the movements of the muscles concerned in speech as does apraxia to the movements of the limbs." He believes that Marie is justified in his contention that there are no separate visual and auditory speech centres and that the factors of speech are not memory images of words; whether visual, auditory or kinæsthetic. In conclusion he considers Marie's conception of aphasia to be superior to the labyrinth of theory with which this subject has been surrounded in the past. However, as already mentioned, Broca's area should still be retained as the center for motor speech; this reservation being compatible with our acceptance of the remainder of Marie's doctrine. A comprehensive bibliography is appended of recent literature on aphasia.—*Brain*. Vol. 31, part 124.

GLEANINGS

THE RESULTS OF DRUG TREATMENT IN FIVE HUNDRED CASES OF DELIRIUM TREMENS—The author's statistics show that the mortality of his cases was 58% when sedatives were not employed. Patients who were treated with sedatives in doses equivalent to 15 grains of chloral in 24 hours presented a mortality of 21.8%. Increase of the dose of sedative above this point was attended by decided increase in the mortality. The use of bromides in incipient cases lowered the liability of development of delirium 20.2% as compared with those incipient cases to whom bromides were not administered. But the mortality of delirious cases was increased 4.7% by the use of bromides. The author believes this increase to be the result of too large doses—30 to 90 grains of mixed bromides every 4 hours—and to too frequent repetition of the dose. Ten to thirty grains of chloral every 4 hours, increased by 2% the mortality of delirious cases. The development of delirium by incipient cases, however, was decreased 28.3% by the use of chloral. Morphine and scopolamin were found to be practically useless, and furthermore the latter drug increased the mortality 13%. Whiskey lowered by 20% the tendency of incipient cases to become delirious and increased the mortality of delirious cases 1.8%. The fluid extract of ergot, given in dram doses every 4 hours, reduced the mortality 21.6%, and in incipient cases the tendency to become delirious was reduced 23.3%. The writer believes ergot to be of the greatest value in diminishing the severity of delirium though it did not seem materially to shorten the attack.—S. Walter Ranson, *Jour. of the A. M. A.*, April 17, 1909, p. 1224.

CHARLES D. FOX, M. D.

MUSCULAR SPASM DUE TO MUSCULAR EXERTION IN A HEATED ATMOSPHERE.—The author has treated over fifty cases of this disease occurring in 24 or 25 individuals who were exposed to the intense heat of steel works. The condition is most frequent during the warm days of spring and especially when the humidity is great. Chronic alcoholics do not seem to be predisposed to the attacks. Muscular exertion in an excessively heated atmosphere are the exciting factors. Insufficient amount of rest between "turns" renders the worker more susceptible. The attacks may occur while the patient is at work or several hours later; after profuse perspiration has ceased.

Following diminution or cessation of perspiration spasmodic contractions gradually appear; usually beginning in the flexors of the fingers. Each tonic contraction continues for from one to three minutes and is followed by a period of relaxation which, in well developed cases, lasts only two or three minutes. As a result of spinal hyperæsthesia slight stimuli may cause spasms of the affected muscles. The groups of muscles involved in one attack of this disease are most apt to be implicated in subsequent at-

tacks. Severe pains and mydriasis occur with each cramp. The pulse is usually normal. The onset of free perspiration, lessened duration of individual spasms, and increase in the length of the inter-paroxysmal period, are indications of the termination of an attack.

These seizures, when untreated, last from one to fifteen hours and, after recovery, the patient feels stiff and sore. After forty-eight hours he is able to return to work. The author has never heard of any case terminating fatally. Unusual susceptibility may render it necessary for the patient to change his occupation. If the affected parts become flexed, during an attack, the pains are more intense, and as the muscles appear to be abnormally strong at this time, much force is necessary in order to prevent the legs or arms becoming flexed.

Less force is required to prevent flexion than to overcome it. One or two sharp blows with the open hand, over the affected muscle, usually results in immediate relaxation.

Morphine, even in large doses, while relieving the patient from pains, has little influence on the duration of the attack. Hot packs cause the cramps to become less severe, in from fifteen to thirty minutes. The author found that apomorphine, administered hypodermically, produces immediate relaxation. The best dose, according to his experience, is 1-20 grain. For the resultant prostration this should be followed by strychnine sulph., 1-30 grain every four hours. The author reports five cases of this disease.—Howard M. Welsh, *Journ. of the A. M. A.*, April 10, 1909.

CHARLES D. FOX, M. D.

TWO ANOMALOUS CASES OF SYRINGOMYELIA.—Gordon Holmes and R. Foster Kennedy report two very interesting cases of syringomyelia, in neither of which the disease was diagnosed during life.

The first patient, a man, contracted syphilis at the age of eighteen. This was followed, three years later, by optic neuritis and complete double hemiplegia which lasted two weeks and disappeared quickly under anti-syphilitic treatment. Subsequently he remained well for a number of years.

Unsteadiness of gait and difficulty in walking in the dark, both of which had been present for some years previous to his thirty-ninth year, gradually increased until, when forty-two years old, it was necessary for him to use two canes when walking. About the same time there appeared rigidity of the legs, tendency to tire easily, and difficulty in starting the flow of urine. Furthermore, he had noticed, but two years prior to the first examination, diplopia, failure of vision, and ataxia of his arms.

When he was forty-three years of age examination disclosed the following ocular conditions: Visual activity 6-18; consecutive optic atrophy, internal strabismus, and the presence of nystagmus during ocular movements in any direction, movements of the arms were ataxic. Static ataxia and locomotor ataxia were well marked. The lower extremities were very spastic and feeble. Ankle clonus could be elicited and the knee jerks and the achilles reflexes were much exaggerated. Decided relative analgesia and less marked tactile anæsthesia was found on the ulnar aspect of both upper extremities and on the trunk, from the second costal cartilage

to midway between the xiphoid and the umbilicus. Thermal sensibility was not impaired.

Following a fatal attack of pneumonia the autopsy revealed calcareous concretions, stratified calcification and great thickening of the spinal membranes; these changes being most pronounced in the cervical and upper dorsal regions. Upon sectioning the cord a central cavity was discovered; beginning in the mid-lumbar segments and continuing up into the medulla.

Microscopic examination of prepared specimens showed, throughout the length of the cord, degeneration of the crossed pyramidal tracts; ascending degeneration of the spino-cerebellar tracts from the tenth dorsal segment; and degeneration in the cervical region of the posterior columns. The cavity, varying greatly in size and situation, occupied the gray commissure, the posterior horns, and encroached upon the anterior horns and lateral columns. Dense gliosis, more extensive than the cavity which it surrounded, spread along the posterior median septum and into the posterior and lateral columns. In the upper dorsal region the gliosis involved the posterior root zone and the tractus marginalis on both sides. In the medulla the central canal was surrounded by sclerotic neuroglia tissue containing two slit-like cavities which, extending ventro-laterally to the periphery at the level of the decussation of the pyramids, gradually became shortened until they disappeared in the upper third of the medulla.

The foramina of Munro, the aqueduct of Sylvius, and the ventricles were found to be in a state of hydrocephalic dilatation. In addition the ependyma of the aqueduct was considerably eroded and torn through; probably a mechanical result of the dilatation. During removal of the brain the membranes about the medulla were so torn that occlusion of the foramen of Magendie could not be determined, but it was believed that the hydrocephalic condition was caused in this manner as a result of the pachymeningitis. This pachymeningitis was believed to be purely a syphilitic manifestation.

In commenting upon the case the authors observed that the association of syringomyelia and pachymeningitis is not infrequent and that the meningeal condition is often found as a secondary result of medullary disease. They believe, however, that a considerable number of cases in which this association occurs can be explained only by assuming that the association is co-incidental, or that the two diseases are the result of a common etiological factor, or by considering the syringal disease to be secondary to the meningeal changes.

In looking over the literature they found that the meningitis in different cases was tubercular, syphilitic, of unknown origin, or the result of cerebro-spinal meningitis. Therefore the pachymeningitis that occasionally co-exists with syringomyelia is not always of the same nature. They regard the spinal cord disease to be more probably secondary to the meningitis. This is explained by the possibility of pachymeningitis, so interfering with the blood or lymph circulation of the cord as to cause necrosis and absorption of the tissue followed by gliosis. Furthermore attention is directed by them to the belief that syringomyelia is not always produced by the same mechanism and causes.

Hinsdale's review of the literature showed that hydrocephalus was form-

ed in association with syringomyelia in 10% of 150 cases of the latter disease.

A second case is reported in which were found multiple cerebral psammomata springing from the dura; syringomyelic cavities of the thoracic portion of the cord and extending down as far as the eighth dorsal segment; and a very large glioma, originating from the ependymal cells of the central canal, occupied almost the whole of the transverse extent of the eighth, ninth and tenth dorsal segments. Neither ascending nor descending degeneration of any of the tracts could be found.

The most remarkable feature of this case, one which the authors consider as incapable of being satisfactorily explained, is the fact that frequent and careful physical examination during life failed to reveal any signs of spinal cord disease. The authors conclude that the syringomyelia and tumors of this case, a not infrequent association in other reported cases, arose independently of one another as manifestations of a common developmental anomaly.—*Brain*. Vol. 31. page 124.

CHARLES D. FOX, M. D.

THE WASSERMAN REACTION AND DEMENTIA PARALYTICA.—After describing the principle and technique of the Wasserman reaction, E. Castelli, in order to show the specificity of the reaction to syphilis, presents statistics of a number of observers.

The application of this test, by the author, to cases of dementia paralytica has resulted in positive reactions in 100% of the cases. He appears to believe that syphilis can so affect the central nervous system as to cause structural presenility, and he compares parietic dementia as produced in this manner with the dementia senilis that may accompany other manifestations of senility in certain aged individuals. Among other conclusions he calls attention to the great value of a diagnostic procedure that enables one to discover the presence of syphilis in a patient who, being in the incipient stage of dementia paralytica, presents symptoms more indicative of a neurasthenic state. Furthermore, he considers as imperative the adoption, by hospitals, of this diagnostic method.—*The Technique of the Wasserman Reaction*, etc., *N. Y. Med. Journ.*, April 17, 1909.

CHARLES D. FOX, M. D.

SACRAL TABES: A CASE WITH NECROPSY.—The patient, a man, aet. 54, had complained of sharp pains in the right thigh. After being admitted to the Philadelphia Hospital he had incontinence of urine and faeces, and ataxia severe enough to confine him to bed. The pupils were myotic and reaction to light was doubtful. There was a cataract in the right eye. The achilles reflex was lost on both sides, but the patellar reflexes were very prompt. Later the knee jerks were found to be diminished; the right one being the more so.

Examination of specimens from the sacral region showed the posterior columns and the posterior root zones to be markedly degenerated; this degeneration being more apparent on the right side. These pathological findings would account for the loss of the Achilles reflex and for the vesical and rectal symptoms. As the posterior root fibres were not found to

be degenerated above the third lumbar segment, the preservation of the patellar reflexes was explained.

The author reviews the reports of four cases of sacral tabes and quotes the statistics of various observers in order to indicate the greater frequency with which the Achilles reflex is lost early in tabes as compared with similar disturbance of the patellar reflex.—S. Leopold, *Journ. of Nerv. and Ment. Diseases*, April, 1909, p. 193.

CHARLES D. FOX, M. D.

AMYOTONIA CONGENITA: THE RECORD OF A CASE WITH ACCOMPANYING CLINICAL FINDINGS.—But twenty-seven cases of this disease have been reported since 1900. Symptoms are usually noticed just after birth and tend to improve slowly. The muscles, though not paralyzed, are placid and very weak. The facial muscles are not involved. Deep reflexes are lost. Faradic excitability is diminished and remarkable toleration of strong faradic currents is characteristic.

In Spiller's case microscopic examination showed hyaloid appearance with arrest of development of the muscle fibres; thymus normal; and central nervous system and peripheral nerves normal. Bandonin noticed similar condition of the muscle fibres, in his case, and in addition, sclerotic changes in the thyroid; and changes in the anterior multipolar cells and the peripheral nerve trunks.

The author concludes by reporting an interesting case of his own.—Thomas J. Orbison, *Jour. of Nerv. and Ment. Diseases*, April, 1909, p. 204.

CHARLES D. FOX, M. D.

INTRACRANIAL COMPLICATIONS OF ETHMOIDITIS.—Acute ethmoiditis is classified by the author, Frederick Krauss, into three clinical varieties: 1, Acute serous ethmoiditis; 2, acute suppurative ethmoiditis; 3, phlegmorous ethmoiditis. After quoting the opinions and statistics of various authorities, he reports two fatal cases of the phlegmorous type and then describes the disease.

Following a cold in the head associated with severe neuralgic pains, the suppurative and phlegmorous cases develop erysipelatous induration of the nose and adjacent forehead, together with marked œdema of the lids of the affected side and decided tenderness and œdema of the inner wall of the orbit. In a case of ethmoiditis the appearance of high fever, indicative of extension, is soon followed by grave manifestations of intracranial complications. Exophthalmos is caused by œdema of the retro-orbital tissues or by cavernous sinus thrombosis. Proptosis of the other eye results from extension of the thrombotic process through the circular sinus to the opposite cavernous sinus—and in this event the prognosis is very grave; operative treatment in such cases being practically useless, according to the conclusions of the author.

Exophthalmos is associated with chemosis, iridoplegia and either mydriasis or myosis. Death occurs in from three to five days. After describing his operative technique Krauss concludes: 1. "There is an increasing conviction that acute suppurative ethmoiditis causing orbital cerebral symptoms is not as rare a condition as has been thought." 2. "It is often rapidly fatal, especially in the young." 3. "Indications for opera-

tion in acute ethmoiditis are sudden increase in temperature, delirium at night, tumor formation in the inner wall of the orbit, the slightest exophthalmos. Operation should not be delayed too long. As in appendicitis, early operation is a harmless procedure, late operation generally useless." 4. "When there is bilateral exophthalmos, operation is generally useless, as the disease has probably extended through the cavernous and circular sinuses, causing a general toxæmia and pyæmia, or fatal brain lesion."—"Two Cases of Acute Suppurative (Phlegmonous) Ethmoiditis in Children Resulting in Death," *N. Y. Med. Jour.*, April 24, 1909.

CHARLES D. FOX, M. D.

THE PASSING OF THE DRUG.—In an editorial on this subject in the May Number of the *Ladies' Home Journal*, after commenting upon the fact that the use of drugs in the treatment of disease is fast becoming obsolete, the writer speaks of a drug bill contracted in a recent case of typhoid fever of \$200.00, and adds that "bills of an even larger amount were common in the past of cases of pneumonia."

In a contemporary medical journal Dr. Lydston, I think it was, an eminent surgeon, asks where would we be without chloroform, ether, cocaine, carbolic acid, bichloride of mercury, iodiform, morphine, quinine, and other drugs about as useful? It seems as though when the editor of a literary journal intrrenches upon the medical field he always makes an indecent exposure of himself, the more prominent the journal the less he seems to know upon the subject. Who ever heard of a bill for \$200.00 for drugs used in the treatment of typhoid fever, even in the old crude days. And such a drug bill in pneumonia, a disease lasting not half as long would be inconceivable.

Imagine, too, a homœopath subscribing to the "passing of the drug," stepping aside from his materia medica to chase the various fads and isms and opathies that pass before his undisturbed vision day by day.

"LE PAIN ESSENTIEL" IN OBESITY.—Under the name of *Pain "essentielle"* are sold in Paris biscuits, with and without Chloride of Sodium, and rich in nitrogen and in organic Phosphates, which do not leave any toxic residue and have proved an excellent food for the diet of the *Obese and diabetic*. They have a good taste and contain a larger amount of *nitrogenous principle* than the best biscuits of *legumine* (31.06 per 100), and the *hydrocarbonaceous matters*, important also in quantity (49.81 per 100) are constituted by starch transformed, in a large measure, into dextrine readily soluble, and consequently not very apt to favour acid fermentation, so markedly found in the obese.

It is besides a food admirably suitable to this class of patients, since it allows them to restrain the hydrocarbons while furnishing a normal nitrogenous allowance. It is in fact indispensable, if we wish that the treatment does not become a source of weakness for the obese, and that the loss of tissue imposed by the regimen, falls exclusively on the fat, and spares the muscles.

In the severe regimen of the obese, the daily amount of bread allowed does not exceed 100 grammes, and thus they obtain about 8.5 grammes of *albumin* and 60 grammes of *carbohydrates*, while under the same amount

of "*Pain Essentiel*" they utilize 30 grammes of *nitrogenous matter* and only 46 grammes of *carbohydrates*.

Moreover, the patients find much easier to check the consumption of bread while taking the "*Pain Essentiel*," for the simple reason that its dryness and friability hinder the absorption of a very large quantity. We observe, in practice, that the *obese*, who is always a great eater of bread, and consumes from 300 to 400 grammes, is satisfied with 50 grammes of "*Pain Essentiel*," more or less.

The therapeutic results have amply confirmed the theoretical principles upon which the employment of this artificial bread is based; and in the obese, who has simply restricted the use of sugar and hydrocarbons, and have taken the "*Pain Essentiel*" in place of the ordinary bread, well marked diminution of the weight has been noticed, and this without loss or modification of the muscular forces whatever.

One can thus easily, as Dr. Robin asserts, avoid Ebstein's cure, which we all know weakens the patient, makes them anæmic and provokes dyspepsia, and institute a rational treatment, which simply should consist in satisfying his appetite and checking the excessive formation of fat.—*Journal des Praticiens*.

PIGMENTATION OF THE RETINA FROM THE VITREOUS CHAMBER. TYPICAL RETINITIS PIGMENTOSA.—Ernest V. Knappe reports the case of an elderly man, myopic, who had suffered from a detachment of the retina, which by degrees had become total. After this condition had persisted for some years, inflammatory symptoms manifested themselves. The most noteworthy point was that fine pigmentation became visible with the ophthalmoscope on the detached retina. After a chronic irido-cyclitis the eye was enucleated. Examination of the interior of the eye showed dark round spots and branching slender lines on the retina. The choroid was pale, poor in pigment, except at the place where it was attached to the retina. At that point it was densely pigmented. Microscopically the specimen showed the same characteristics, except that it was evident that the dark places were formed by free pigment granules and pigmented spots. After describing the microscopy in detail and considering the etiology of typical retinitis pigmentosa, he briefly summarizes his theory as follows: The cause of retinitis pigmentosa is two-fold: a predisposition on the part of the choroidal vessels to endarteritis obliterans, due to a congenital anomaly, and an excitement in the form of some disease of the eye, a fever, or syphilis. The nature of the disease is a gradually progressive endarteritis obliterans which begins in smallest capillaries of the choroid behind the ciliary body.

As a consequence of altered nutritive conditions, the process produces atrophy of the retina, which slowly proceeds from the periphery toward the center, together with a secondary migration of pigment into the retina. He suggests that it would be particularly interesting to determine whether the patients are affected with endarteritis of other parts besides the choroid.—*Archives of Ophthalmology*.

WILLIAM SPENCER, M. D.

BILATERAL GLIOMA OF THE RETINA WITH NUMEROUS DISTANT METASTASES.—John Patterson Gardiner, reports the case of a child, four years of age, with the usual clinical history. When a few months old the parents noticed a peculiar yellow reflex in the right eye. At the age of three and one-half years the eye was enucleated and a diagnosis of glioma made. Three months later there was a recurrence in the right orbit and an involvement of the remaining eye. Several months later death took place and a post-mortem examination was made. Above the left zygomatic arch, in the region of the pterion, was a tumor the size of a goose egg, extending upward under the hair; on the right side was a similar tumor, a trifle smaller, while over the scalp several groups were palpable. The skull was remarkably altered in shape, and was found upon removal of the calvarium, to be invaded by the growth. Nodules were seen in both pleural cavities, the periosteum of the vertebræ was affected, the lymph glands of the neck, the tracheo-bronchial, the supra and infra-clavicular glands were all involved. Included in the growth was also the right testicle, the periosteum of the iliac bones and the bodies of both ischia were enlarged, as well as the long bones of the leg and sternum.

Microscopical examinations were made of the growth from the sternum, the right temple, the right iliac bones, the dura, the posterior nares, the lymph glands in the right side of the neck, the medulla and periosteum of the femur, of the recurrent growths in the eyes and around the left optic nerve, and of the epidural and testicular tumors. A detailed examination of the eye revealed typical glioma, in all other sections from growths outside of the eye, the tumor proper consisted of minute round cells sparsely endowed with cytoplasm, with nuclei varying considerably in size, but generally equal to, or smaller than the nuclei of lymphocyte. In some of the cells of the nuclei had the chromatin in such irregular masses that their appearance strongly suggested paknosis. In the secondary growths there was none of the palisade arrangement about the vessels, the so-called perivascular cell mantles; in other words, the malignancy of the process as it is illustrated by structure, was marked by an absence in nearly all of the primary tumors. The absence of orderly growths, and the appearance caused by it, present in nearly all the secondary tumor, was such as might be met with in round-cell sarcomas originating almost anywhere in the body.—*Archives of Ophthalmology*.

WILLIAM SPENCER, M. D.

PARALYSIS OF THE ABDUCENT NERVE ASSOCIATED WITH OTITIS MEDIA.—The unusual association of abducent paralysis with an apparently uncomplicated inflammation of the middle ear has in recent years been observed in a number of cases. In the writer's case this association was particularly clear, and the other symptoms were of interest as throwing some light on the probable connection. These symptoms were beyond those of an acute otitis media of moderate severity, paralysis of the right external rectus and pains in the right eye, cheek and gums, and inability to chew. This group is suggestive of a lesion in the Gasserion ganglion. It is interesting to observe that this complication of otitis has generally occurred in cases with insufficient drainage; in the writer's case perforation has not taken place. Dr. Arnold Knapp, New York, *Archives of Ophthalmology*.

WILLIAM SPENCER, M. D.

A CLINICAL STUDY OF TUBERCULOSIS OF THE FUNDUS OCULI.—Drs. Marburg Krauss and Wuerzburg A. Bruecker, records the observation, in rapid succession, of two cases of this rare condition and report in full the interesting features in connection therewith. The cases show a marked similarity, in the picture and course of the disease, and there is hardly any doubt that they depend on the same pathological cause. Both were young men with a hereditary taint of tuberculosis. Both date the ocular disease from an injury. The involvement of one eye only, loss of central vision, the painless course, with correspondent defect in the field of vision, and the limitation of the diseased process to the posterior half of the globe, were striking features in both cases, and there was a similar involvement of the vitreous of each. The details of the fundus changes, too, were quite alike. The condition of the disk and vessels, showing that there was no primary disease of the nerve or retina, the presence of multiple hemorrhages, yellow gray deposits of varying size, small pin-head size, protruding white dots, retinal detachment, with a surrounding zone of white discoloration, the lack of pigment deposits was the same in both. Finally there was the appearance of fresh hemorrhages after the injection of tuberculin, as the expression of a local reaction.—*Archives of Ophthalmology*.

WILLIAM SPENCER, M. D.

THE TREATMENT OF SERPIGINOUS ULCERS OF THE CORNEA BY THE GALVANOCAUTERY.—Emil Vasek, of Prague, believes that the general practitioner should be taught to send every case of serpiginous ulcer of the cornea into a hospital at once, so that galvanocautery can be applied. Dependence on antiseptic washes and ointment is precarious. Every application of the galvanocautery does no harm and will prevent spreading of the disease, cutting short its duration. Thorough cauterization is required when the infiltration involves all the layers of the cornea or the limbus. When the hypopyon is thick and moderate in amount, no puncture of the anterior chamber should be made.

Puncture of the anterior chamber with the galvanocautery offers no advantage over the knife. Suppurating lacrimal sacs should be extirpated at once. The patient should be kept quiet after extensive cauterization of the cornea, since a perforation has occurred in the third week.—*Annals of Ophthalmology*.

WILLIAM SPENCER, M. D.

OCULAR METASTÀSIS FOLLOWING FURUNCULOSIS OF THE NECK.—Adolph H. Pagenstecher states that it is very rare that an abscess below the conjunctiva will penetrate the sclera and cause panophthalmitis. He reports a case in a 51-year-old woman, who had furuncles on her neck, which in spite of incision, showed a tendency to spread. Two weeks later there was a slight protusion and immobility of the eye ball, with redness and swelling of the lids, and pus in the anterior chambers. Two weeks after this, the conjunctiva on the temporal side was projected forward. The cornea was clear, aqueous humor cloudy and a gray reflex was obtained from the fundus.

The following day after the removal of the bandage, pus was exuding from a fistulous opening at the side of the former conjunctival projection.

A sound introduced into this opening entered the globe. Staphylococci were found in great numbers. The eye soon became quiet. Five months later the lids were greatly depressed as in anophthalmos, though the eyeball in its anterior half presented a good appearance. The pupil was occluded and retraction of the sclera was apparent at the side of the fistula. Diagnosis then was phthisis bulbi posterior due to metastasis.—*Annals of Ophthalmology*.

WILLIAM SPENCER, M. D.

OPTIC NERVE DISEASE CAUSED BY PREGNANCY.—The author presents an interesting case of primary optic nerve atrophy following pregnancies. The patient first consulted him in 1872, complaining of poor vision, particularly pronounced in the left eye. She was then 35 years old, but had already been pregnant 14 times. Three years previously she had sought the advice of an oculist for failing vision in O. S., but was told that treatment would be of no avail. Under strychnine injections and potassium iodide, vision in O. S. was practically restored to normal, in O. D., to reading Jaeger No. 14.

Two subsequent pregnancies resulted in further visual impairment and temporary heminopsia. A spontaneous delivery in the one instance and an artificial abortion in the other, was followed each time by considerable improvement of vision. Vision in O. S. was finally lost entirely, but in O. D. vision improved, enabling the patient in her 70th year to write a letter to the author, containing a favorable report as to her general ocular condition.

While it seems improbable that the physiological enlargement of the pituitary body occurring in the pregnant state can, under normal conditions, exert pressure on the chiasm, Reuss suggests that in this case there might have been a shallow sella tursica lodging a pituitary body abnormally large because of the patient's active sexual life. This would explain the temporary heminopsia and the stationary character of the affection during the non-pregnant state. He considers such a hypothesis more plausible than one attributing the condition to a mysterious autointoxication. A syphilitic infection could not be substantiated.—V. Ruess, Vienna, *Annals of Ophthalmology*.

WILLIAM SPENCER, M. D.

HABITUAL ABORTION.—Schickele encountered the case of a woman who had three abortions, and he was able to carefully examine the specimens. He says in such cases the usual causes are syphilis and nephritis; but in this instance both of these usual factors could be positively excluded. Other causes to which abortions are referable are disturbances of circulation, chronic intoxications, and endometritis. Aside from these the author believes there are further conditions, not yet generally recognized, and which depend entirely on anatomical basis. These the author believes to have been present in the case cited, and describes them as consisting in a benign proliferation of the chorio-ectoderm, in consequence of which thromboses are caused in the intervillous spaces and led to the death of the ovum.—*Beitrag z. G. u. G.*, Vol. XIII, 222.

THEODORE J. GRAMM, M. D.

THE PATHOLOGY OF ENDOMETRITIS.—In a brief article Schickele reviews the recent teaching of Theilhaber, Hitschmann and Adler and others that we must modify our views concerning the classification of the forms of endometritis. The latter authors have lately emphasized a thought long entertained by those interested in gynecological pathology that the only real inflammation of the endometrium and one due to micro-organism is that form known as endometritis interstitialis. Glandular endometritis, according to these authors, represents a premenstrual state of the endometrium. Schickele now points out that we are prone to err if this latter statement be accepted without any modification, for not all such cases represent premenstrual conditions; the latter assumption also does not satisfactorily explain the variations in the number of glands, and that a premenstrual condition does not explain the associated frequent, irregular and profuse hemorrhages. He would therefore retain the term glandular endometritis as representing a pathologic condition. Omitting the description of the microscopic appearances, he thinks the condition may be brought about (1) by diseases of the uterus itself; the so-called chronic metroendometritis, submucous and intramural myomata, carcinoma. 2. Inflammatory diseases of the adnexa with or without involvement of the pelvic peritoneum. 3. Displacements of the uterus, especially retroflexion of the uterus. These three groups of causes certainly induce irritation, hyperplasia and hypertrophy, modifications of the circulation, and hence secondary endometrial changes. This view is certainly rational and is in accord with clinical experience.—*Beitrage z. G. u. G.* Vol. XIII, 358.

THEODORE J. GRAMM, M. D.

MALIGNANT METASTASES IN ORGANS HAVING AN INTERNAL SECRETION.—Offergeld has made a valuable contribution to our knowledge of this subject in his comprehensive study bearing the above title. Some of his conclusions are: Cancerous metastasis in the thyroid gland is rare in uterine cancer; it is encountered only in inoperable cases and in general carcinosis. It occurs by way of the blood current. Secondary carcinoma of the thyroid always causes evidences of compression.

Metastases in the supra-renal capsule are rare. They all arise through the blood current; the left side is preferably affected on account of the arrangement of the blood vessels. These secondary tumors occasionally occur in still operable cases of uterine cancer; but are associated with general carcinomatous processes. With these tumors there is galloping cancer. Clinically they are apparently operable, but anatomically there is general carcinosis; therefore all treatment is too late. The supra renal metastatic cancer causes no symptoms, but is found as a side issue at the necropsy.

Metastases in the kidney are more frequently found, but only in advanced uterine cancer. They are mostly associated with the formation of general and multiple metastases. They arise through the blood current. Secondary kidney cancers have caused no symptoms, but were only found at the section. For the formation of metastases there is necessary the circulation of carcinoma cells in the blood and impairment of the formation of alexines in the organism. The active toxic cancer extract is an antagonist of products formed in organs having an internal

secretion. In the thyroid glands, the kidneys, and the suprarenals, the most important process is the specific tissue change of these organs. Whether in the thyroids the iodine exerts an influence upon the formation of metastases is uncertain, but the colloid constituent is certainly inactive. In the suprarenals the anæmia producing power of the adrenalin probably co-operates. In the kidneys the nephrolysin probably causes a degeneration of the cancer cells.

In all cases in which the uterine cancer causes a metastasis in the organs having an internal secretion, liver metastases are frequently found. The causes of the infrequency of metastases in these organs is the specific albuminoid bodies and the characteristic tissue change of these organs. In the organs having an internal secretion metastases only arise after the fermentative and antitoxic function of the liver has vanished.—*Arch. f. Gyn.* Vol. 87, 144.

THEODORE J. GRAMM, M. D.

TYPHLITIS.—Lyons (Chicago) reports a case of inflammation in the right iliac fossa which undoubtedly began in the walls of the cæcum. Prior to encountering this case he was most positive in the opinion that perityphlitis could not occur except as secondary to appendicitis. The case is described in detail, and the account is followed by a review of the opinions of many well known operators. The author summarizes his study by affirming that typhlitis and perityphlitis can take place independently of appendicitis; that appendicitis can and does occasionally occur secondarily to or may follow these diseases. To have appendicitis it is not necessary that the mucosa of the appendix be the seat of the primary inflammation. A catarrhal inflammation of the cæcal mucosa may precede and be the cause of a similar condition in the appendix from which may follow peri-appendicular disturbances. From the multiplicity of opinions found in medical literature, it is evident this question is as yet unsettled. It is possible that there are twice as many retrocecal peritoneal adhesions as there are periappendicular peritoneal adhesions, as proven by observation, autopsies, and surgical operations. Modern pathologists are inclined to the belief that the cecum is quite frequently and primarily involved. Appendicitis may result from primary typhlitis. In all cases of cecitis the appendix is not always the root of the evil. (Tyson). Stercoral ulcer has a definite position in the production of perityphlitis (Trevés). The appendix is frequently infected from a diseased cecum.—*Amer. Jr. Obs.* Vol. 59, 76.

THEODORE J. GRAMM, M. D.

PHYSICIANS IN ENGLAND.—There are in England 39,993 accredited physicians against 39,703 of the preceding year. In London, however, there is a diminution; 6,420 in lieu of 6,480 of last year.—*Le Progres Medical*.

In the April *Homoeopathic World*, Dr. Alfred K. Pearce recommends Phytolacca for the cure of post-scarlatenal dropsy.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

A. LEIGH MONROE, M. D., MIAMI, FLORIDA.

THE DISCOVERY OF THE MEDICINAL SPHERE OF GELSEMIUM.—The value of gelsemium was an accidental discovery. About sixty years ago, in the South, a negro was sent to gather a certain herb which had the reputation of being valuable in cases of bilious fever. By mistake he gathered gelsemium, and administered a decoction of it to his master, who had resisted all ordinary treatment. The result was great prostration. There was loss of muscular power; he was unable to move a limb and could not raise his eyelids, and it was thought that he would expire. But after a few hours he revived and had no return of the fever. Some enterprising doctor, knowing of the case, prepared a medicine from gelsemium and disguised it with wintergreen. He called the nostrum "Electrical Febrifuge." After a time it became known to the profession.—C. E. Witham, M. D., Lawrence, Kans., in *Medical World*.

A NOTE ON BARYTA MURIATICA IN THE RESPIRATORY SPHERE.—By Stanley Wilde, L. R. C. P., L. R. C. S., Edin. On several occasions I have been much struck with the power of barium chloride in bronchial affections of old people.

Some years ago I first used the remedy in a case of chronic bronchitis and dilated heart, in a patient aged 76, who had run the gauntlet of all the ordinary medicines. I gave it more as a heart tonic than with any idea of helping the bronchitis, when, to my surprise, it markedly relieved the cough by facilitating expectoration, the patient expressing herself as having found more benefit than from any other medicine.

Since that time I have used baryta mur. in cases where there is a great accumulation and rattling of mucus, with a difficulty in expectorating it, and it has rarely failed in promoting a free expulsion of phlegm.

Just lately I gave the medicine to a lady, aged 79, suffering from recent hemiplegia, with a chronic tracheal catarrh and much rattling of mucus, so that she felt at times as if she would suffocate. The expectoration was scanty, white, and very stringy, and had been helped previously by kali bich., but this now failed to relieve. On giving her baryta mur. 2x trit. every three hours, the mucus was brought away easily in large quantities, and in a few days the constant rattling in the windpipe had completely ceased.—*British Hom. Review*, March, 1909.

THE GENIUS OF THE REMEDY.—The genius of a remedy is expressed in its personality and for the homœopath this has great significance and much interest. To properly grasp the spirit of a remedy as expressed in its personality means the welfare of the patient and his successful cure in many instances. To attain this grasp means more than a mere perfunctory reading of the materia medica. That which is curable in disease as well

as that which is curative in medicine must be known to the subscriber. This knowledge, therefore, presupposes, not only a knowledge of drug pathogenesis in its purity, but also a knowledge of diagnosis and pathology in the widest sense. Hence the homœopath is one who recognizes the value of modern scientific achievement in the broad field of medicine and by virtue of such recognition is better able to bring to bear the medical implements of his armamentarium upon the inroads of disease.

The personality of a remedy, its genius, means those characteristics which typify and distinguish it from any other remedy. Thus e. g. the depressed mentality even to the point of suicide, the intestinal flatulence and yellowish loose alvine discharges, the general aggravation mornings and in wet weather of natrum sulph, give to this otherwise commonplace drug a characteristic personality all its own, and not to be matched by that of any other remedy. It is true that many remedies have a wet weather aggravation and that a number have a mental depression even to the point of suicide, such as arsenicum and aurum, but the picture in its entirety is not met in any other drug.

For the prescriber the interest lies in the fact that a knowledge of these few characteristics of a drug, in a word the practical conception of its genius, enables him to prescribe with precision without the burden of attempting to memorize a cast and other meaningless mass of apparently unrelated symptoms.

Such prescribing is perhaps nothing more or less than so-called keynote prescribing, but it is keynote prescribing based upon thoughtful intelligent conception and raised far above the plain of routine symptom matching.—*Editorial N. A. Journal of Homœopathy.*

ONE OF DR. ALLEN'S LAST UTTERANCES.—Dr. H. C. Allen, Chicago, Ill.: The time to give the homœopathic remedy in acute cases is after the chill or paroxysm has passed. The time to give every remedy in chronic cases is before the hour of aggravation. With some remedies it is in the early morning. The hour for aggravation of pulsatilla, phosphorus, lycopodium, rhus radicans and some others is in the evening. If it be a chronic case, adjust the hour for administering the remedy as far as you can from the hour of aggravation in order to get the best results.

Another thing in regard to the repetition of the remedy stated in the paper provided the symptoms remain the same. I have found it that, if the picture of the case remains the same at the second prescription, which, by the way, is the most difficult prescription ever made, if you think it best to repeat the remedy, you should change the potency. Why did not the first prescription have the desired result? Possibly, I will not say probably, because you did not select the right strength.

Another point. We very frequently have heard it said, "I gave the 1x or 2x or 3x and failed. I gave the 30th or 200 of the same remedy and cured." I have heard doctors say, "I gave the 3x and the 6x and cured, and I gave the 200th and the 1,000th and failed."

Now, it is not the potency. The potency is not defective. You failed to measure the dynamic strength of the patient in order to fit the strength of the remedy to that of the patient. Hahnemann says (Sec. 16), we must adapt the dynamic strength of the remedy to that of the patient.

Another point in the repetition of the remedy. The practice of Hahnemann, as mentioned in the paper, was that of giving a single dose, especially in chronic cases. A single dose is all right in chronic cases, but in acute cases Hahnemann also says you may give the remedy every ten or fifteen minutes until improvement sets in.

Using the same processes of reasoning that Hahnemann did, we may obtain from nature any number of illustrations. For instance, how large a dose is required of the toxic element of *rhus radicans*, which is perhaps one hundred feet from the patient, or the exposed person, who may be simply riding along the road and the wind blowing across his pathway. He is, perhaps, not exposed to the poison more than a few minutes, but long enough to get one or two inhalations from the toxic elements of the *Rhus*. We cannot say exactly how large a dose he has received, it was dynamic, but large enough to produce results. This is true of all our doses in the process of testing a remedy on the healthy or in curing the sick.

CALENDULA A PHYSIOLOGICAL ANTISEPTIC.—Dr. R. D. Homsher, of Denver, Colo., writes in *Allingwood's Therapeutics*: "Calendula is an antiseptic of great efficiency, working in harmony with the natural laws of life, that one is constrained to call it a physiological antiseptic so compounded by the Almighty that given a proper vehicle and timely application, it seems complete. No suppuration occurs when promptly used. It holds in abeyance the sensory nerves; it stimulates the vaso-motor nervous system to clear the way and bring on reparative materials; it stands guard over the injured part to destroy the septic enemy if it should threaten to interfere, while the great sympathetic, with God-like omniscience, hastily closes the breach and restores the citadel to safety, comfort and peace.

"And the leaves shall be for the healing of the nations."

SILICA MARINA IN CONSTIPATION.—Dr. E. Cronin Lowe reports five cases of chronic constipation in patients, four of whom were accustomed to take strong aperients and suffered from backache, tendency to hæmorrhoids and other accompaniments of such a condition. The drug was given in the 3x trit., administered at night or night and morning, and the patients allowed to continue their purgatives at less frequent intervals. The effect of the silica marina was gradual but permanent, as after a few weeks the purgatives became unnecessary, and comfortable daily evacuations took place. The fifth case was that of a child, aged 3, who had very rare stools (once in seven days), hard, broken, and light colored. Various remedies had been given without effect, but silica marina 3x every night cured the case in ten weeks.—*British Homoeopathic Review*, December, 1909, p, 715.

INDICATIONS FOR CALCAREA CARB., SILICEA, IODIUM AND PULSATILLA IN RACHITIS.—Rachitis, another widely prevalent disease, is often present with its characteristic indications—sweating about the head during sleep, kicking off the bedclothes, delayed dentition, &c. Calcarea 12 has a simply marvellous effect with these children. Besides the pathogenesis of calcarea, which so closely corresponds to the symptoms found in rickets, there are

special nasal symptoms—ulcerated and scabby nostrils, epistaxis, obstruction of the nose by yellowish fœtid pus, coryza excessive and fluent. Silicea, which appears to act in a complementary way, filling up what calcaria has left out in the treatment of rickets, has also special nose symptoms—epistaxis, anosmia, fluent coryza, acrid and corrosive mucus in the nose. How we are reminded of the adenoid condition of these symptoms, and the picture is made more complete when we get the boring and throbbing in the ears, shootings in the ears from within outwards, and otorrhœa.

These local symptoms, together with the general constitutional symptoms, make silica a particularly valuable remedy in these conditions, and clinical experience fully confirms this; hence a course of silica 12 or 30 follows calcaria well.

Rickets and congenital syphilis may coexist, as is often the case, when the symptoms which are in the ascendancy call for the most clearly indicated remedy.

Iodine is frequently called for; it has in its provings deafness from Eustachian catarrh, inflamed tonsils, roaring in the ears, stoppage of the nose, fluent coryza, yellow mucus from the nose, increased watery saliva, burning in the fauces, swelling and elongation of the uvula. There is also dry cough; child grasps the throat with the hand; agitated, restless sleep, with vivid and anxious dreams; nocturnal sweat.

These symptoms, which are so frequently met with in post-nasal growths, I have seen yield to iodine 3x. On looking into the throat there is a glistening semi-translucent state of the mucous membranes, a granular pharyngitis, the mouth is watery, secreting too much saliva, and abundant mucus.

These last symptoms also suggest antim. crud., a remedy specially suited to infants and children. Besides suiting the local condition, it is also a scrofulous medicine.

In the pathogenesis we find otorrhœa and deafness, roaring in the ears, excoaration of the nostrils and corners of the nose, stoppage of the nose, accumulation of thick yellow mucus in the nostrils. It is a medicine of great value in such conditions, the special indication being the white, coated tongue and watery mouth:

Pulsatilla is most useful in those cases of Eustachian catarrh of recent origin following an attack of measles. It has many ear, nose and throat symptoms, and has a profound action on the mucous membranes.

NASAL OBSTRUCTION IN CHILDREN.—Geo. R. Day, January *Journal of British Hom. Society*. Later on in article Dr. Day adds Calc. Phos. Merc. Sol., Nit. Ac., Arsen. and Sul. to this list.—Ed.

ASCLEPIAS TUBEROSA.—The homœopathic indications for asclepias with reference to the respiratory organs are: Dry cough with constriction of throat causing pain in the forehead and abdomen; dry, hacking cough; breathing painful, especially at base of left lung; oppression and difficulty of breathing; in paroxysms like asthma, sharp pain shooting from left nipple downward, with stiffness at left side of neck, sharp cutting pain behind the sternum, aggravated by drawing a long breath or moving the arms. The spaces between the ribs close to the sternum are sensitive to

pressure, and the pain, which is acute, quick and darting, shoots over to the right. Pain in chest relieved by leaning forward. Acute pleuritic pain in right side, with dry, hacking cough and scanty mucous expectoration.

The field of usefulness of *asclepias* is by no means limited to the organs of respiration, but may be and often is, of decided value in diseases of the stomach, in peritonitis and appendicitis, and in catarrhal diarrhœa and dysentery it soothes the entire intestinal mucous tract.

The indications guiding us in the use of *asclepias* in diseases of the stomach and intestines are "nausea and efforts to vomit, neuralgic pains of pressive character, weight and burning, rumbling in the bowels with uneasiness or sharp cutting pains, colic pains from flatulence, dull pain in bowels on pressure."

The writer has used the drug to hasten the eruption of measles.

If for any reason active diaphoresis is desired, it is best given in a strong, hot infusion.

Its action should not be forgotten in acute rheumatism. It may be combined with *macrotys*, *colchicum* or any other indicated remedy. Where there is effusion into the joints as well as into the pleuritic cavity, the agent will be found serviceable.—Dr. M. M. Braubaker, in February *Eclectic Medical Journal*.

HOMŒOPATHIC REMEDIES FOR CHOLELITHIASIS.—Among drugs *calc. carb.* stands first, and Hughes claims that he has never had it fail him. The patient is inclined to obesity, perspires easily, there are stitches and pressure in the hepatic region, also a feeling of fulness and great dislike to clothing about the waist.

Belladonna is called for by the hot and fiery throbbing carotids, sensitiveness to light and noise or jar, and pains that come on quickly and leave as quickly.

Nux vomica is highly recommended by Hempel and Arndt in this affliction on these indications:—

Hepatic colic characterized by the sudden invasion of the most excruciating pain in the epigastric region and right hypochondrium, nausea and vomiting, spasmodic contraction of the abdominal muscles, coldness of the extremities, profuse cold perspiration. The pain is more severe than that calling for *belladonna*. It may be necessary to give the *nux* in large doses in five drops of the tincture.

Berberis will sometimes give relief, particularly if the pains extend down the track of the right ureter. Dr. Arsçhagouni, of New York, speaks highly in its favor.

* * * * *

In the homœopathic school remedies are given rather for the digestive and hepatic disorders that are known to underlie biliary lithiasis than with a view to dissolving the stones. The leading remedies are *cinchona*, *nux vomica*, *calcareo carbonica*, *chelidonium*, *lycopodium*, *sulphur*, etc., prescribed on the general indications.—Dr. Ella M. Tuttle, February *N. A. Journal Homœopathy*.

LECTURE ON THUJA.—*Thuja* was proved by Hahnemann and re-proved by the Austrian provers. Its main influence is on the genito-urinary organs,

it produces inflammation of the urethra and pains in the genital organs, sweat of the genitals, warts and condylomata. There may be pus in the urine, and even sugar. The prostate is inflamed and there is irritation at the neck of the bladder; urine comes in a small stream. Thuja has an affinity for the ovary, and causes pain in the ovary, worse left side. It produces abortion and acrid leucorrhœa. The periods are scanty and tend to come too soon; there is pain in the left ovary, worse on the first day. Burning pains and itching round the anus, fig warts and condylomata. Dr. Dudgeon proved thuja on himself, and it produced an acute urethritis resembling gonorrhœa.

In the skin thuja causes warts, tuberos growths, and papillomata. It has been used for warts and new growths in the skin, even for epitheliomata. It may be applied locally to warts as well as given internally. Marshall Radetsky was cured of cancer in the thigh by means of thuja. Brown stain of the skin. It has some relation to small-pox, having produced a pustular eruption resembling that of small-pox, for which complaint it was first used by Bœnninghausen. Dr. Burnett disclosed a close relationship between thuja and vaccinosis, especially chronic disorders resulting from vaccination. Its relationship to gonorrhœa and to warty growths has placed thuja in the front rank of antisycotics. Gonorrhœa is considered to be a true chronic miasm which corresponds to the sycosis of Hahnemann, and Dr. Allen holds that vaccination is a means of spreading this sycotic taint through the community, and that when thuja antidotes the effects of vaccination, it does so through its antisycotic powers. As illustrating the value of thuja in cases of vaccinosis, Dr. Wheeler related the case of a child suffering from long-standing eczema of very severe type, which first appeared shortly after vaccination, and to whom thuja 30 was given with immediate beneficial result. At the end of a week thuja was given again in a much lower dilution, with the result that a violent aggravation of the eczema occurred. On leaving off the thuja the aggravation subsided, and the eczema was in a short time entirely cured.

Thuja is in the main a left-sided remedy. It is a chilly remedy. The symptoms are worse in the morning after rising, worse for wet and cold. It will produce rheumatism similar to gonorrhœal rheumatism, affecting most the larger joints, which creak and are worse from warmth. The movement of extension in the joints is hindered. The patient is cachectic or waxy-looking. He has dreams of falling. The secretions are offensive, especially the sweat, notably the sweat on the genitals. The pains are apt to be in small limited spots, e. g., the "headache as if a nail driven in." The catarrhs of mucous membrane are of a chronic character, as they are also in the subjects of gonorrhœa.

The mind is dejected, morose, quarrelsome; fixed ideas. The pains in the head are frontal or occipital, in spots, mostly left sided, and are better in the open air. Scurfiness of the scalp. In the eye, conjunctivitis, tumors of the eyelids. Clinically it has been found useful in syphilitic iritis. Polypos of the meatus of the ear. Chronic catarrh of the nose with greenish and fœtid discharge. In the teeth, the base of the teeth close to the gums is the part that decays; pyorrhœa alveolaris. Epulis. Ranula. Condylomata and mucous patches in the throat. No appetite for breakfast and

unpleasant taste in the mouth. Dr. Cooper has worked out its sphere in gastro-intestinal disorders, and finds thuja indicated in dyspepsia in which there is flatulency, pain after food, sinking sensation at epigastrium before food, thirst, a clean tongue, and constipation. Dr. Clarke finds its sphere in dyspepsia the result of tea-drinking and considers it an 'antidote for tea-poisoning in general. Thuja has been employed for polypus of the vocal cords, and also for asthma which is the result of chronic disease and where there is associated thirst.—Dr. Wheeler in the *British Homoeopathic Review*, April, 1909.

LECTURE ON LYCOPodium.—Though lycopodium has been occasionally used in former times it has entirely dropped out of use in general medicine, except as an ingredient in dusting powders. It is prepared for homœopathic use from the spores, which contain an oil inside them which is the active property, and thus the spores need to be fractured. By fracturing the spores trituration develops the energy of the drug. It is insoluble in alcohol, but quite soluble in ether. Hahnemann introduced it as a medicine in his chronic diseases. It was re-proved by two doctors in 1860. It affects the constitution generally, and it is the constitutional symptoms that most often lead to its choice as a remedy. Its greatest affinity is for (1) the alimentary canal, in which sphere it produces water-brash and sour vomiting, constipation and hæmorrhoids, which are the result of portal congestion, and are caused partially by a diminished secretion of bile. There is chronic catarrh of all the alimentary tract. Abdominal pains due to flatulence, which collects chiefly in the small intestines; the wind passes downwards. (2) The respiratory system, there is chronic catarrh of the whole respiratory tract; chronic coryza, bronchitis, phthisis. It seems to act in phthisis as an anti-pus remedy rather than as an anti-tubercle one, and it is useful for cases of phthisis resulting from neglected colds or pneumonias which fail to clear up properly. (3) The urinary tract; catarrh of the bladder; increased secretion of urine, with deposit of lithates or of red sand. It is the great remedy for the uric acid diathesis. Parenthetically, Dr. Wheeler remarked that all chronic disease remedies had a selective influence on the mucous membranes. The lycopodium type of patient is one who is emaciated, dark rather than fair, with weak muscles, of good intellectual powers, sallow, quick at lessons, but easily tired; the Paul Dombey type of child. Men of good ability, but dreading failure to get through their work, and yet who do it well when they make the attempt.

Lycopodium is a drug with several keynotes, viz., the appearance or aggravation of the symptoms from 4 to 8 p. m.; symptoms right-sided; pains and symptoms go from right to left (lachesis left to right); is better from uncovering (silica worse from it); better from loosening garments (lachesis the same) better for warm drinks, but worse from external warmth; right foot hot and left foot cold; restlessness relieved by motion; worse from lying on the affected side; dryness of the mucous membranes, of the skin, especially the palms; fan-like movement of the alæ nasi, not a respiratory symptom, and is not synchronous with respiration; pains come and go suddenly (like belladonna). Taking symptoms in detail, we have:

Mind.—Sensitiveness, apprehensive, avericious, peevish, melancholy, irritable.

Head.—Headache fronto-temporal, worse in evenings, better out of doors, worse from meals being delayed. Scurfy skin of scalp.

Eyes.—Styes.

Nose.—Smell very acute. Tendency for the nose to bleed in chronic catarrh.

Face.—Sallow. Twitching of muscles.

Mouth.—Gums ulcerated; gumboil; dry mouth without thirst; tongue foul and stiff from spasm.

Tonsils.—Inflamed, beginning on right side.

Stomach.—Sour risings, likes sweets; cannot eat oysters, dislikes meat, flushed face after eating; pains in liver region; noisy flatulence, distension, cannot bear pressure; pains in right shoulder and scapula. Constipation, stools hard and contain but little bile; spasms of anus; hæmorrhoids; itching of anus.

Urine.—Increased, pale, deposits lithates or red sand.

Sexual.—Irritable impotence.

Respiratory.—Wheezing, dry cough; lung affection where there is much pus (it seems to have an antidotal relation to pus cocci). Hoarseness, late pneumonic stages or early phthisis.

Circulatory.—Pains in heart; throbbing of arteries; aneurism.

Skin.—Dry, with hot palms; ulcerations; nettle rash; nævi, pains in the fasciæ; warts, especially on the hands.

Sciatica and neuralgia; cramps of calves, worse at night, better for slow motion.

Lycopodium is best given high and in occasional doses. It is a bad remedy to begin a case with. Is incompatible with coffee.—*Ibid.*

LECTURE ON CALCAREA.—Calcarea is a medicine that has been used to some slight extent in the old school, especially in the form of the phosphate, for rickets and defective bone formation. Latterly also it has, on the suggestion of Professor Wright, been used to raise the coagulability of the blood in such complaints as hæmophilia, hæmorrhages, œdemas, urticaria, chilblains, and some kinds of headaches.

Professor Lewin has found that overdosing with lime causes uterine hæmorrhages of some duration, and in children pain in the region of the kidneys and bleeding from the kidneys and bowels. From excessive use of lime water he has noticed to result loss of appetite, dyspepsia and vomiting, indicating catarrh of the stomach, at first constipation and later diarrhœa; itching eruptions on the skin, consisting of large red patches with a red areola.

Sir A. Wright found that though he could always raise the coagulability of the blood by material doses of salts of lime, he could not keep it raised permanently. They probably first raise and afterwards depress the coagulability. Dr. Ham has found that he could raise the blood coagulability by giving calcarea in potencies and that it remained raised much longer. He could also raise the coagulability with strontium, but could not cure a calcarea patient's symptoms with it. This shows that the symptoms produced by calcarea are by no means exclusively the result of its

effect on blood coagulability. Professor Schulz says that lime is a definite stimulant to the periosteum. It is used also for protective purposes, as instanced by the calcification of injurious products like tubercle, and of the weak patches in atheromatous arteries. In his provers he found there was produced apathy, melancholy, a sense of great fatigue. He considers that calcarea has an affinity for the grey matter of the nervous system. Congestion to the head, the arteries, throat. Headache, often one-sided. Pains in the muscles and joints. The mucous membranes are affected and secretions are increased. There are hoarseness, pains in the chest, and bleeding from the lungs. Pain in the right hypochondrium. First constipation and then diarrhœa. Increased prostatic secretion. In the female the catamenia come too soon and last too long, the breasts swell and are painful. It has a probable action on the thyroid. Urticarias, œdemas and boils are caused. Calcarea has been used as a hæmostatic from the time of Paracelsus, but Dr. Schulz thinks it is usually used in too large doses for hæmorrhage, and that gelatine injections obtain their hæmostatic power from the calcarea contained in them. It has an affinity for the muscular coat of the vessel wall. Professor Schulz gives a drachm of lime water once a day for urticaria. He used it also for chronic catarrh, leucorrhœa, sweats, chlorosis and anæmia, gout, diabetes, rickets, and commencing tuberculosis. He finds it acts best in young people. Rademacher used a 3 per cent. solution of lime for boils, &c.

Hahnemann proved calcarea and defined its sphere, and the kind of constitution for which it is suited. The calcarea patient is chilly and sensitive to damp cold; the hands and feet cold and clammy; the feet feel as if damp stockings are on them; if the feet become warm they get too hot. There is an empty, gone sensation in the abdomen, which may occur at any time of the day. The patient is inclined to be fat; soft, flabby fibre. Calcarea is a remedy for fatty tumors. Children with large heads which sweat, open fontanelles, chilly, fair, large, lethargic, delayed teeth and walking, night terrors, sour, acid secretions, ravenous hunger, like indigestible things, like eggs. Stools sour, chalky, pale. Cough worse in cold air. Calcarea has an affinity for the right apex. It can produce warts. On the whole it is a right-sided remedy. The mental and body conditions are slow, often almost imbecile; talks to himself. Apprehensive. Pains are worse for movement. Cramps. Symptoms worse before and after midnight. The natural secretions are nearly all increased. The tissues are relaxed. Lymphatic glands enlarged. Skin tends to ulcerate; the ulcers are indurated. Deep abscesses; calcarea will cause pus to be absorbed. Polypi and exostoses of bone. Pain in the back is marked, especially between the shoulder-blades and in the sacrum; there is pain on attempting to rise from a sitting posture. Tendency to take cold. Sleep disturbed, short naps. Sweat after but moderate exercise.—*Ibid.*

NEW AND UNUSUAL USES OF COMMON REMEDIES.—Leonard E. Schoch, M. D., Chicago. The application of the remedies, as set forth in this brief paper, is based upon clinical indications chiefly, though many of the uses indicated are confirmed by an appeal to the pathogeneses of the drugs. Some of the uses noted are novel and others are uncommon merely, and are here reiterated for the purpose of emphasizing these unusual and not sufficiently recognized values of the remedies.

Clinical indications—the appeal to experience in the selection of remedies—while not ideal are, nevertheless, valuable in that they make up much that is of value in our practical materia medicas, and in the final test they are generally found to have a basis in our therapeutic law.

First we wish to emphasize an undoubtedly valuable use of our old friend, sepia.

SEPIA, 3x-30th.—*Hot flushes, menopause.*—The exceptional value of this remedy for the relief of these distressing manifestations is not generally recognized. Here it ranks with lachesis, and like it, not only alleviates, but cures these annoying incidents of the climacteric period. It is especially useful in the “hot flushes,” often so disturbing, in the premature and surgically induced menopause of the castrated female. Here the flushings are frequently accompanied by intense cerebral congestion—more marked than in lachesis. Sepia has apathy and indifference or irritability and ill-humor, and lachesis the extraordinary loquaciousness, vivid imagination—brain teeming with ideas—characteristic of the remedies—here accentuated by the vicariously hyperemic cerebral structures.

The indispensable “climacteric quartette” are sepia, lachesis, glonoin and aconite.

ZINC ARSENIATE, 3x.—*Chorea.*—For this condition of trophic disturbance of the blood and nervous tissues of the organism, this is a remedy of promise,—combining, as it does, a specific influence over the destructive tendency in the one and the instability in the other. Conditions especially calling for its use are marked deterioration of the general health with anemia in children, especially in chlorotic and nervously overtaxed school girls. Exhaustion, profound on slightest exertion, is a predominating characteristic. There is also great depression of spirits and marked involvement of the lower extremities.

It corrects the anemia and exerts a tonic effect in restoring the exhausted nerve cells.

ARTEMISIA ABSINTHIUM, 1x-2x.—*Chronic Diarrhea.*—Wormwood or absinthe has helped me in several contests with intractable and chronic diarrhoeas. Chronic diarrhoeas of old people; diarrhoeas of dysenteric type, following dysentery, that refused to get well with ordinary remedies. Five drops of 2x dilution or teaspoonful doses of an infusion of the dried leaves—preferably the latter—cured the cases permanently. Why or how I am not prepared to say. Two cases of what had been diagnosed as amoebic dysentery of some duration,—one claimed to have been treated at Johns Hopkins Hospital,—both made prompt recoveries. In one case of chronic diarrhoea in an old lady, all apparently indicated remedies were tried in vain. In disgust I advised her to make a tea (infusion) of the dried leaves of the wormwood and take a teaspoonful 3 times a day. She was promptly and permanently cured.

SABAL SERRULATA.—*General and Sexual Debility.*—In the Saw Palmetto we have a remedy with valuable properties for promoting nutrition and tissue building. In the sexual neurotics—those debilitated from sexual excesses, natural or from pernicious practices—it is of positive service. The appetite is increased and digestion and nutrition promoted. The languor, apathy and indifference, with the appearance of debility, give way to vigor and alertness under the spur of its positive tonic properties.

It is of especial value in young female neurotics, who from suppressed or perverted sexual inclinations, become anemic and run down. Often a valuable remedy in supplementing the good work of phosphoric acid in these cases. 15 to 20 drops of the tincture are given two or three times a day. Larger doses should not be given.

IODIUM, 1x-3x.—*Pneumococcal Infections.*—Aside from the use of this remedy in acute and especially in unresolved croupous pneumonias, there are cases of persistent or chronic pneumococcus infections simulating and often diagnosed as incipient pulmonary tuberculosis, where it is a remedy of priceless value. These cases are characterized by persistent cough, usually dry and hacking, expectoration generally scanty (though profuse in mixed infections), more or less pronounced emaciation, sometimes fever—hectic in character—with furred tongue and anorexia, and much weakness and prostration; a condition in many ways confusingly similar* to the early manifestations of a rapidly progressing pulmonary tuberculosis. The physical signs are indefinite but the general aspect of the patient would dispose to a diagnosis of tuberculosis were it not that the sputum examination reveals, not tuberculosis bacilli but pneumococci, often in abundance.

The exhibition of iodine of 1x-2x dilutions—best when freshly prepared—will produce results equally surprising and gratifying to the patient and attendant. But for the microscope you will have cured a case of incipient pulmonary tuberculosis.

KALI SULPH., 3x.—*Post Grippal Cough.*—This is a remedy peculiarly efficient in the persistent and oftentimes troublesome post-grippal coughs. Catarrhal inflammations with profuse expectoration, sometimes yellow, with a cough worse in hot rooms and in the evening. Especially useful in coughs remaining after la grippe in children. In cases where pulsatilla is seemingly indicated but fails, as it is a first cousin of pulsatilla—having many symptoms in common with it. In these cases it also follows well after kali bichromicum.

Remember this remedy in your troublesome coughs following la grippe.

XANTHOXYLUM, 1x-3x.—*Amenorrhœa.*—A remedy par excellence for delayed or suppressed menses is the prickly ash, a fact not sufficiently appreciated. Its usefulness as a remedy for amenorrhœa exceeds that for neuralgic dysmenorrhœa for which it is justly valued. Amenorrhœa resulting from depressed condition of the vitality—the non-reactive states, hence its usefulness in chlorosis. In those cases where leucorrhœa appears in place of the menses in anemias—especially in chlorosis and where the chlorotics are subject to palpitation, the cardiac disturbance being a marked characteristic of the remedy. For women of spare habit, nervous with hysterical tendencies.

In women nervously inclined, who because of worry or debility have delayed menstruation and imagine themselves pregnant, give xanthoxylum 5 drop doses of the 1x dilution hourly—the woman is made happy and you have made a friend. In deficient or delayed menstruation in young girls where pulsatilla fails.

The remedy has served me so well that when the indications for a remedy are not clear in these cases I give xanthoxylum.

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

PULMONARY TUBERCULOSIS TREATED WITH VERDIGRIS DUST.—The coming novelty of our friends, the allopaths, is the treatment of phthisis by the *inhalation of verdigris dust*, applied by the patients themselves. The *technique* is very simple, as it will be seen further on.

Dr. Billard, Professor of the Medical College of Clermont-Ferrand, the introducer of this treatment, prescribes these inhalations for half an hour, mornings and evenings, but their duration should always be according to individual susceptibility.

The employment of *pulverized verdigris* was suggested to Prof. Billard by observations made among the workers of a *verdigris laboratory*. At the head of this establishment was M. Degeorges, a graduate of pharmacy from the School of Clermont-Ferrand. Among those employed in packing the verdigris were several consumptives, and two of them suffering from hemoptysis. They were very emaciated when they entered the works and gradually experienced a cessation of the bleeding, recovered their appetite and rapidly gained in weight. At present they can be considered cured, or at least in excellent condition. M. Degeorges assured Prof. Billard that none of his men ever cough, and that the general health of the *personnel* is perfect.

It was in August, 1908, that Prof. Billard commenced to treat consumptives with the *inhalations of acetate of copper*. The *technique* of this treatment, as said above, was suggested to him by observations made in the factories where this salt is prepared. In these works are several rooms or halls, and while in some of them the dust is intense, in others, one only perceives a slight savor of *acetic acid*; but in no dependency of the works does one hear any coughing. The workers accustomed for a long time to inhale the *verdigris*, form the permanent force of the establishment, while the rest comprises those hands hired for the packing of this product. That a habit or tolerance for this mineral dust is developed, no one can dispute, for if a stranger suddenly enters into the working rooms, he is at once seized with violent cough and distressing sneezing. Now, no one ignores that the lungs of tuberculous patients cannot be exposed to irritating substances, and yet they become accustomed to *verdigris* and fare well by its inhalations.

As to treat several patients, at one time, would demand a series of wards, overcharged more or less with this substance, and the expense would be beyond the means and appropriations of the institution, Dr. Billard has resorted to a very simple method of individual treatment, which allows the confirmation of the therapeutic value of *verdigris dust*. It consists in providing the patient with a killogramme of *pulverized verdigris*, which should be as chemically pure as possible. This powder is poured on a dish or plate, and from there is taken in sufficient quantity

by means of a bent visiting card to spread it gradually so as to create the amount of dust required. The spreading operation, made with more or less raised arms, should be repeated every minute, or every 2 or 3 minutes, according to tolerance. At the beginning of the cure, the kilo of *verdigris* furnishes all the dust needed, but after 15 days use it becomes coarse, rolls from the card like sand, and must be pulverized again to make dust.

The *treatment* should last half an hour, mornings and evenings, but it may be prolonged or shortened, according to the susceptibility of the patient. By this simple method Dr. Billard has been able to have 30 patients under his care. No matter how advanced the lesions, he succeeded in obtaining the following favorable results:

1. A diminution or cessation of the cough.
2. An increase of weight and forces.
3. A diminution or cessation of the expectoration.
4. The stethoscope reveals a regressive course.

In three patients he has observed that *verdigris* had no action whatever in the acute form, with high fever. However, in a torpid case, a febrile attack due to secondary infection, was readily arrested by *verdigris*.

Now, one may be allowed to ask, how does *verdigris* act here? An aqueous solution of the *Acetate of Copper*, allows to verify the emission of *acetic acid* on the surface of the liquid sheet, and the slow formation of *oxide of copper*; and it is very probable that *verdigris* produces in the lungs, by coming in contact with the mucus, a similar phenomenon. The tiny crystals of *verdigris*, even in infinitesimal quantities, seem to penetrate sufficiently the pulmonary lesions to bring about the liberation of *acetic acid*, as well as the formation of *oxide of copper*. To which of these two substances are we to ascribe the curative action? Dr. Billard is inclined to believe it is due to the *nascent acetic acid*, which modifies the reaction of the medium in which it is formed, and hinders the development of microbes. He does not deny, however, the share *copper* may have in the curative process, and mentions the fact that Galippe and many others have observed and reported increase of weight in those animals treated with the *salts of copper*; but, he nevertheless states that under *verdigris* by the mouth, the loss of flesh has continued, and weight was not regained until the inhalations were resumed.

He hopes to furnish the confirmation of his views in favor of the *nascent acetic acid* when he is through with his experiments with other acetates. He claims that, at any rate, the results he has obtained are very encouraging, that his treatment is besides harmless and cheap, and that it has been successfully introduced at the Hotel Dieu of Clermont.

He also reports the interest taken in the subject by his confreres, and the application of the method to private practice. He insists that patients should not be allowed to make too much dust in the expectation of a quick cure. Every case should be individualized, if only to ascertain its tolerance to the drug; and bear always in mind that this treatment does not dispense with any of the hygienic rules and diet for tuberculous patients.—*La Presse Medicale*.

Note:—The pathogenesis of both *Caprum* (fever and respiratory phenomena), and *Aceticum Acidum* (wasting, diarrhoea, oedema, hemorrhages, &c.,) may explain why this treatment has proved beneficial.—E. F.

COAGULATION OF THE BLOOD.—For the study of the subject, Ciuffini, of Rome, advises the following procedure:

Take 10 glass tubes (8 centimeters high, 8 millimetres diameter) carefully cleaned. Pour in each tube 1 cubic centimetre of the physiological solution of *Sodium Chloride* (9 per 1,000). The blood is collected directly from the vein, after puncture, by means of a syringe, pouring, then, in each tube an increased quantity of blood; that is, one drop in the first tube, two in the second, and so on. The mixture of the blood with the *chloride solution*, gives as a result a considerable delay of the coagulation, the more so as the proportion of the salt is greater. The measure of the *coagulation time* is thus rendered easier, and it suffices to toss slightly the tube-holder to examine the *coagulation tubes* without the need of turning them.—*La Presse Medicale*.

EXPERIMENTAL GENERAL INFECTION WITH HEPATIC LOCALISATION.—Le Play reports the results of experiments relative to general infection by a vine parasite, called *steatophora radiculicola*. The *spores*, when injected into the circulation, select the level of the liver, to the exclusion of other organs. Finding in this gland a hydro-carbonous medium, particularly favorable for development, one can see them appear, at the end of a few weeks, under the form of *mycelium* or in the state of *sclerots*. This parasite gives rise to the formation of acid and alcohol, and inflicts harm by its secretions to the hepatic parenchyma; both mechanically and chemically.

These experiments place in evidence the primordial importance of the soil in the evolution of pathological processes. It is thus that we can conceive how these processes can vary, not only from species to species, but, in the same animal, from organ to organ.—*La Presse Medicale*.

THERAPEUTIC ACTIVITY OF ARSONVALISATION.—Doumer has shown that the therapeutic activity of the oscillating magnetic fields depend on their electromotor power, and that the oscillating magnetic fields, equivalents from an electromotor point of view, are also equivalent from a therapeutic point of view.—*La Presse Medicale*.

MICROBIAN DISEASES AND MERCURY VAPORS RADIATIONS.—Gauthier has made a report about the treatment of microbial and contagious diseases by the employment of *ultra-violet radiations*, emitted from tubes carrying vapors of mercury.

HOT AIR IN SURGERY. Bonamy and Muller have applied hot air in surgery, at the Hospital Gouin since February, 1907. These applications have been chiefly made on diabetic and traumatic gangrene, cancerous ulcerations of the breast, epitheliomas of the neck of uterus, canceroids and certain cutaneous affections. He employed Gaiffe's apparatus.

There is not the least doubt that this method is called upon to play an important part in surgical therapeutics.—*La Presse Medicale*.

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The Homœopathic Treatment of Cardiac Diseases

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I.

SOME REMARKS ON THE HOMŒOPATHIC TREATMENT OF CARDIAC DISEASES WITH THE INDICATIONS FOR SOME IMPORTANT HOMŒOPATHIC REMEDIES.

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I PRESUME that by "The Homœopathic Treatment of Cardiac Diseases," is meant that specifically distinct method of applying drugs, internal remedial agents, to the various morbid states of the heart, according to what has been termed the index of similarity. Otherwise than this, one should not hesitate to assert that the treatment of cardiac diseases by the members of the homœopathic school, differs in no particular from the usual methods accepted and practiced by the medical body universal.

There are many ways of applying drugs, in the practice of

the healing art. The needs of the complex human body when sick, may be many; it is probably true, that no one therapeutic method can always and invariably supply those needs. The reasonableness of homœopathy has been demonstrated in many ways. One example is her willingness to recognize and admit as a fact—that drugs *may* be selected for the sick not only according to the index of similarity, but in other ways; and, in accordance with other methods of reasoning. The method of similia was offered by Hahnemann to the medical world, as an improvement, as something better than the methods of selecting drugs for the sick, in vogue in his day and before that time. And when I undertake the task of showing, in a few moments, that this method of Hahnemann is a method that can be very often successfully used in the application of drugs to cardiac cases, I frankly admit, at the same time, the existence and utility of some other methods of drug selection in the same class of cases, merely reserving the right to hold the individual opinion that the method of similia is, generally speaking, the best method to use. I see nothing in the history of medicine that makes one think that any school of medicine will endure that takes cognizance of but one single therapeutic method. And I see in the reasonableness and liberality of the *homœopathic* school, something that surely makes for perpetuity. Therefore I have no wish to theorize any one into belief in the universality of the index of similarity as a guide nor into a belief in the infallibility of remedies selected according to the same. No physician has a right to be guided by the theories which cannot be verified by experiment, nor to voice opinions, that cannot be substantiated by facts.

The acute inflammations of the heart, endocardial or pericardial are common cardiac affections. We often overlook them, which is unfortunate because they are generally the beginning of a series of morbid changes in the heart which once started are progressive and ultimately fatal. And I feel quite inclined to believe that, in the initial inflammatory stages, endocarditis as well as pericarditis may be moderated, held in check, even brought to a more speedy termination by proper treatment and thus we may, at least minimize the resultant immediate damage to cardiac structures.

A very important item of what we should term “proper treatment” is the internal remedy, selected according to the index of similarity. If one has to combat hyperpyrexia, vio-

lent cardiac action and a high degree of nervous and physical restlessness; it is easy to imagine that these features will react most injuriously upon a beginning acute cardiac inflammation. Rest, local and general, being such an important desideratum; one is often glad to recollect that *aconitum* will surely hurry the subsidence of such a picture. Its selection is clearly according to the index of similarity; and, its pathogenetic effects point clearly to an active febrile picture with possible endocardial or pericardial localizations. These latter came out occasionally in the poisonings; and, in the animal experiments.

The general high fever, mental and physical restlessness and apprehension, with a rapid hard pulse, were attended with enough cardiac phenomena, to justify its early recognition as possibly a suitable remedy. Subsequent experience has shown it to be reliable in such pictures *previous* to the development of copious serous exudation, or previous to marked structural changes.

The reliableness of aconite has been universally recognized by *all* medical men. Even those who would not discuss the relationship of similarity which we admit, are not slow to state that it must never be used in adynamic states nor after fever has disappeared and serous effusion has arrived.

The homœopathic school have not regarded the local cardiac symptoms as so important, in an indicative way, as the symptoms of the mental sphere. When we say that aconite may be selected confidently for such febrile pictures as I have referred to, providing the patient shows that great fear and anxiety of mind that features anguish, apprehension, and excitement in the febrile picture, we are simply stating facts that can be used at the bedside. The man who gives aconite when the patient is sluggish, quiet and uncomplaining, is oblivious to the best interests of the patient, even if there be fever.

Thus in very stout, full-habited subjects when the face is darkly flushed and turgid, when respiration is laborious and difficult, when the pulse is full and strong and the cardiac action violent, the homœopathic physician seeing an entire absence of the feature of mental fear and anxiety might well prefer *veratrum viride*.

The bloodshot eyes, the hot, turgid head and face, the laborious respirations, the full, hard pulse, the perhaps twitching or delirium, without anxiety, fear restlessness; or tossing rest-

lessness, would picture to the homœopath a condition of affairs that might yield more promptly to veratrum than to aconite. The question of doing one's best for the patient is thus ever uppermost in the mind of the practitioner who selects his remedies according to the index of similarity.

Now I should consider several other remedies just here, but these two will suffice to accent our method of differentiating those remedies especially suggested to us by febrile phenomena rather than by the localized cardiac features of the early inflammations.

A good many years ago Dr. Latham first urged the profession to invariably regard the sudden advent of *pain in the cardiac region*, during rheumatic fever, as a sign that the heart had become involved or would soon become so. If the heart began to beat rapidly or with violence, or irregularly; and, pain developed, we were asked to look to the heart quickly. Now this homely advice is not to be forgotten in febrile pictures not so evidently rheumatic or cardiac in nature. There are not a few ambiguous febrile pictures, that may be proven to be endocardial inflammations, if one will watch the heart from day to day. Violent, sharp pain, stabbing in character in the region of the heart, with distinct tenderness in that region, and a friction rub would not only tell us that the inflammation was pericardial; but, it would suggest the propriety of giving *spigelia*. These stabbing pains are very prone both in practice and in the *spigelia* pathogenesis *to radiate to the back and to the left arm*, and the action of the heart is generally tumultuous and violent, although it may not always be regular. In such a picture, one does not see the fever, nor the mental anxiety and restlessness of *aconitum*. While these things may be present under certain conditions in another kind of picture calling for *spigelia*; in the case before you, they are eclipsed, extinguished, annulled by the great features of violent pain, violent cardiac action, difficulty in breathing when lying low or upon the left side and aggravation upon any movement even of the arms. So we recognize this picture as one that will quickly be relieved by *spigelia*. Now will it be? Unquestionably it will; and, moreover, the subsequent course of the cardiac inflammation will be shortened and lightened as many such results tend to show us. Fifty years ago Jahr said that *spigelia* would help ossification of any part of

the heart, and pain was his indication. You know how *spigelia* has grown in favor in angina.

Such pictures as this present themselves to the physician early in cardiac inflammations rather than late in the period when effusions occur in those cases which are permitted to go on so far.

Now to some physicians pain is pain, just in the sense that "pigs is pigs." But to the homœopathic prescriber the predominating feature of *compression or constriction* in the cardiac pain present in a case of cardiac inflammation, might cause him to prefer not *spigelia* but *cactus*.

You might reply that this would be an instance of prescribing upon one symptomatic key-note, but such is not the explanation.

Your picture for *cactus* shows the same difficulty in respiration, the same distress when upon the left side, the same radiation of pains from cardiac region to the back and down the left arm that you had in your *spigelia* picture. There may have been also a mental fear, anxiety and excitement that at first glance suggested *aconite*. But, eclipsing, overshadowing and forcing aside all these features there is this *awful, compressive, constrictive sensation about the heart* which attracts your attention by its very insistence and severity. And no man who respects the index of similarity would think of *spigelia*, for example, until he had given his *cactus* because he would know that experience has shown us that the best interests of our patient are conserved by *cactus* under such circumstances.

And if the pulse was really feeble and weak and irregular he would think still better of *cactus*.

I might illustrate this feature of differentiation of pain, according to its predominating features, in many other ways; but time does not permit it. Now, in these early cardiac inflammations, the homœopathic prescriber is sometimes forced by duty to regard as of paramount importance in the morbid picture *certain most prominent features outside of the immediate cardiac region*, or aside from the purely febrile phenomena.

If time permitted I would mention a case of acute endocarditis, associated with marked choreaic movements and menstrual derangement, for which I saw my colleague, Dr. Yeager, prescribe *pulsatilla* with the best possible results. But I prefer to illustrate this point by a mere reference to *spongia tosta*, a remedy quite neglected, in cardiac therapy, to my way of

thinking. In the cardiac inflammations in the presence of a picture featured by almost the same fear and anxiety and nervous apprehension as would suggest aconite, almost a resemblance to the stitches suggesting spigelia, almost a suggestion of the compression of cactus, one finds occasionally that all these features are overshadowed by *paroxysms of suffocative anxiety and violent palpitation that awakens the subject after midnight*. It is a striking sight to see. He must sit up or arise from bed, cannot move an arm without aggravating the distress, is flushed and hot looking, without much fever and well nigh frightened to death.

Here is the place for spongia in acute cardiac inflammations, later than the feverish stage of aconite, liable to be about the spigelia or cactus period or encroaching upon the period when effusion may come or when endocardial changes of a deforming type are beginning, as shown by the more distinct sound to the endocardial murmur. No one who has given spongia persistently may doubt that it does more than relieve symptoms. It ameliorates the pathological changes.

Now we are getting very close to the picture that suggests arsenicum album. We all know that arsenicum suits advanced or developed pictures, rather than the beginnings. It suits a cardiac inflammation that has wrought organic mischief. An ulcerative endocardial change, an effusion within a serous sac. We find its case featured by many evidences of seriousness, of danger to life. It has often been said of arsenicum album, that it is pre-eminently useful in pericardial inflammation, *after effusion has taken place and to some considerable extent*. If it does little or is seldom to be used in the early or initiatory period when fever is rampant, it must be simply that under such circumstances one would lack the picture that calls for arsenicum. It has occurred to most of us that arsenicum comes in very nicely in those cases which in spite of aconite or spigelia or perhaps bryonia, have nevertheless progressed either to effusion or even to involvement of the cardiac muscle itself. The prostration is evident and often extreme, the pulse is small and feeble, the countenance is sunken, the extremities cold, the patient is restless and more than anxious even agonized in spite of the physical weakness. I think that no one who has ever seen the picture of agonized oppression and frantic desire for breath, for movement, for change of any kind; can ever fail to recognize it, although its verbal description is not so

easy. I think that arsenicum will sometimes have to give way to a remedy such as cantharides with which I have myself had two brilliant successes in extreme pericardial effusion. Now when you come to think of it, there is much in the complexion of the cantharis picture that suggests a certain similarity to the arsenicum. The extreme picture of illness as depicted upon the countenance, the great thirst with aversion to cold water, the amelioration from warmth; the burning type of pain and the great pressure picture from extensive effusion. They are not so different after all, in these remedies; and, we have therefore in our selection of cantharides, much more to support the similarity of the remedy to the picture of disease, than would be expressed by the often repeated expression, "Cantharides is selected in great pericardial effusions, because of its wonderful action in promoting the absorption of extensive pleural effusions, when administered internally and applied externally."

Now, if we had time, we might show that arsenicum must sometimes give way to other remedies such as lachesis and other snake venoms if the picture takes on what may be termed a *septic complexion*. This may be usual in ulcerative types of endocardial inflammation.

Now where do your so-called physiological heart tonics and stimulants come into play, in the pictures of acute cardiac inflammation which we have thus sketchily referred to? Strange, but these physiological remedies do not occur as often, under such circumstances, to the mind of the allopathic doctor, as they do to the minds of some members of our own school. They have no place here, or a very insignificant and uncertain sphere of usefulness. The failure or inefficiency of our remedies should suggest the necessity for cardio-centesis or some other surgical measure. If remedies selected according to the index of similarity fail here, there is no reliable data that would go to prove a remedy selected in any other manner, would do better.

In the degenerative cardiac lesions, and every medical man has a lot of such cases upon his list no doubt, I refer to arteriosclerosis, fatty heart and the various types of chronic myocarditis, one often hesitates to prescribe the common physiological heart stimulants. Especially is this the case after one has witnessed several sudden deaths occurring while the patient was taking such remedies. Not every sudden death may reasonably be traced to the untoward effect of the drug, yet there is often

a rather significant suggestion of some such relationship; in the behavior of such hearts under stimulating drugs.

I really believe we may claim that a remedy selected according to the index of similarity and not for the definite purpose of rendering the cardiac systole more efficient, will be the better prescription for such cases.

So long as such a degenerated heart seems capable of carrying on the circulation and no evidences of failing circulation are apparent, we should let the heart severely alone. One learns this sooner or later, if one does not start out with that belief,

The general care of the whole body and the building up of the whole body by diet, by massage, by hygienic measures and carefully regulated exercise should occupy our whole attention, for the heart will participate in any general improvement, at least to some extent.

Let me illustrate this portion of our subject very briefly.

A physician aged about 75 years, in active practice, finds himself no longer capable of attending to his work, because he is breathless, suffers from retrosternal pain and sleeplessness. There is beginning oedema and lots of hyaline casts, in a rather scanty urine.

But the feature is the tremendous sclerosis of every visible arterial branch. Now this man gets, at night, paroxysms in which every blood vessel in the body seems distended to bursting; the pulse pounds in the head and can be heard in both ears; the tension goes up frightfully and soon a copious nosebleed comes on which several times reduced the man to a state of marked anæmia. True there is a spot of atrophy in the nose which accounts for the giving way of the blood vessels just there, but one hesitates in stopping such a hemorrhage too precipitately, reserving his adrenalin locally until some noticeable reduction in pulse tension has been produced.

But such attacks recur constantly—almost nightly. Now glonoine is the remedy that is indicated according to the index of similarity. Not physiologically; but homœopathically related to such a case. I saw glonoine 7x put a stop to such attacks and within a month this man could return to his work. Now such a case as that will be still further helped by such a remedy as aurum metallicum or muriaticum, but this remedy also is one that is indicated for no other reason than that it is a similar remedy to the whole morbid picture. It is a remedy

that can very often be given to just this type of degeneration of heart and arterial system.

Consider for just a moment, aurum is one of the few drugs that erodes the nasal mucosa and the underlying structures deeply—aurum has above other remedies produced that crushing pain under the sternum, that is so common when a man with degenerated heart and arteries exerts himself ever so little—aurum has its worst aggravations at night in every direction—aurum produces strange unaccountable attacks of frightful dyspnoea that come on suddenly from so many little things—and the blood is rushed to the head by the violent palpitation—aurum may have after such a spell—the feeble, weak, irregular pulse. Aurum produces the melancholic despair which such a man would experience, at the thought that he was no longer capable, but must give up all his interests and all his beloved worldly duties. Now the doctor who can take all such things into consideration in such a case, and who gives not digitalis mitigated by nitroglycerine or cactus or strophanthus—but who selects a remedy like aurum, is the truly scientific physician. He is not a bungling empiricist. He has reasonable grounds for what he does.

You take another man with chronic myocarditis—you never can know to a certainty just what type of degenerative process is there—but the man in spite of diet and care, visibly emaciates and loses muscular tone, gets thin and spare—and looks degenerated. And from his weak, thready pulse, accelerated upon every exertion; and the absence of definite enlargement and murmurs, you say he has a chronic cardiac degenerative lesion. Your diagnosis is strengthened by the occurrence of painful attacks of compression about the heart. It seems as if squeezed with an iron band, and this followed by great weakness and faintness in the region affected by this pain.

It does seem as if your diagnosis is correct. Now such a man is not always best treated by five drops of tincture of cactus three times a day indefinitely continued as “the best thing.”

That case will do far better upon iodine and you can easily prove my statement to be true. Yet we do not “know” iodine and we think we “know” when we give our cactus in that empirical manner just stated. It’s not such a simple problem as the strengthening of the cardiac systole that confronts us.

The man who gives the iodide of arsenic to such a case has far better grounds for his prescription than if he gave cactus.

I saw a case that a country practitioner had been treating—a woman 70 years of age with chronic kidney changes—a well marked myocardial degeneration with senile murmurs in both the aortic and mitral areas with utter prostration and pallor and weakness and an almost imperceptible pulse. Now this wise doctor put his patient to bed, gave her hemaboloids to improve her blood; and, for her lost appetite he gave her chininum arsenicosum and then when appetite came back, he fed her. Is not that good treatment and even if it were bungling from the standpoint of your accurate prescribers, it is still far better than any drug directed at the heart. The latter drug could not fail of being detrimental.

This is one of the most interesting of topics and we might go far and not exhaust it. But the index of similarity would remain the best guide for the drug selection.

The commonest sequel of acute endocardial inflammation is, of course, damage to the interior of the heart. The delicate mechanism of the valves is disarranged and the efficiency of the organ as a pump distributing blood, is materially lessened. As a rule these sequential changes in valves take place with a slowness and regularity that permits Nature to compensate for the leak or obstruction, by increasing the cardiac muscular layer most affected. Cardiac hypertrophy, which we so generally recognize in association with valvular abnormalities, is then not a disease, but something quite the opposite. Surely cardiac drugs so-called can have no place in the picture of what we call "fully developed compensatory hypertrophy." If any internal remedy is administered under such circumstances, it must be a remedy that will not disturb this new order of things. Such patients may become ill from causes not resident in the heart and under these circumstances, neither the heart murmur, nor the strong heart beat may be looked upon as parts of the morbid picture. It becomes our plain duty here to diagnose accurately and to apply, according to the index of similarity, that internal remedy which corresponds to the picture of the illness. Such a remedy does not disturb the established cardiac equilibrium. As one eminent author says, "the mere presence of a valvular lesion, never indicates drug treatment."

Now it is somewhat different when cardiac hypertrophy suddenly supervenes upon, or is developed in consequence of violent exertion, prolonged mental excitement, alcoholic excess, or

any of the many cardiac neuroses that cause either persistent overaction, or paroxysms of tachycardia.

Here we do need internal remedies, as the hypertrophy is a disease and one that will surely progress to still more serious cardiac states.

Now the beauty of remedies selected according to the index of similarity is that they take into consideration not only the whole morbid picture, but in addition the etiological factor. And if that be still potent and active, they thus gain in efficiency.

When we administer *rhus tox* or *arnica* not only on account of the complete picture of physical exhaustion presented; but also because of the exciting cause of the sudden hypertrophy (comparatively sudden hypertrophy) we are doing the best that can be done remedially for the patient.

When we give *ignatia* for the effects of worry, excitement or grief as shown in constant palpitation which has resulted in hypertrophy, we have likewise made a judicious choice.

Or, when we prescribe our *natrum mur* for such a case that has clearly been due to a more deep seated melancholy with weeping and sadness and much persistent anxious palpitation, we are doing more than the mere temporary quieting of an over-active heart.

Take as an example of a common neurosis likely to end in hypertrophy, what we term hysterical palpitation. The *moschus* presents us with a very good description of the temperament and behavior of such a patient.

There is an absence of that poise and even balance of the nervous system which is so necessary in order that we poor humans may stand the varying shocks and vicissitudes of everyday life.

A slight opposing circumstance is likely to throw such a patient quite off her balance, so that she loses control of herself and scolds and rages and will not listen to reason or argument until she falls unconscious in a faint. During such a spell, the poor heart is driven at top speed. Or such a woman suffers an exaggerated shock from any slight irritating cause. An ordinary occurrence produces violent palpitation and fainting, or produces great mental excitement during which she may laugh, or cry, or scream, or exhibit fear, or faint; and, no one knows what she will do, but the heart drives on at a great pace to a certainty.

Sleep, which is so essential in such cases, becomes impossible. Everything works against her. She has sexual desires, but coitus makes her vomit and faint and leaves her exhausted and in bed next day.

She has a social duty to perform in the evening, but her supper turns to gas; or at least it seems so; for she is distended to bursting, with incarcerated flatus and spends her evening fighting against, what appears to her, to be threatening suffocation and death.

Now when we recognize the meaning of such pictures in full and give such a remedy as moschus, we are doing more for the immediate present and future of our patient, than if we were to give a hypodermic injection, or if we administered enough digitalis to keep the heart quiet or even digitalis mixed with aconite or belladonna, so that we might knock down the heart without injuring the patient so much.

It is, however, in those clinical pictures featured by *dilatation, cardiac inefficiency, cardiac asthma and dropsy* that it is hardest for the physician to see his way clearly and to know beyond peradventure how the perplexing problems that arise, shall be solved in the best possible way.

Here is where one sees apparently well indicated remedies fail. Here is where we homœopathic physicians jump the track and rush after cardiac tonics and stimulants and physiologically acting drugs in the hope that these measures will prove more effective than remedies selected according to the index of similarity. We forget that these very measures are constantly disappointing the men who use them habitually. That the members of the physiological school are just as often disappointed, distraught, and at their wit's end for something better than the last prescription.

These problems are so fearfully complex. If it were a simple question of strengthening a cardiac systole, the task would be a simple one. But, unfortunately, we seldom see a case of advanced cardiac disease, such as dilatation with valvular disease and dropsy, that is simply that and nothing more. The kidneys are diseased and inefficient, the liver is congested, the portal system is engorged, the stomach is irritable or inflamed, the lungs are hypostatic or worse, and it is the fearful complexity of ailments that makes the solution of the problem so difficult.

We are told that all this complex picture is due to a weak

and inefficient heart and we try to strengthen the heart in the hopes that the whole morbid picture will pass away, when that has been accomplished.

Cardiac weakness may have been at one time the etiological factor, but now it is only one of many factors. We are face to face with the last links of a vicious chain of progressive lesions and we find it hard to work backwards, and more difficult than ever, when we propose to go back to the beginning after the initial etiological factor. Many such pictures are hopeless from every point of view. It is justice to our patient if we really try to do our best, whatever that may be.

Now, speaking for myself alone, I feel that my inefficiency in the treatment of those advanced cardiac pictures with their concomitant disturbances in other related organs and systems, comes for the most part from my own limited knowledge of remedies. I do not know enough remedies, well enough, to apply them accurately to this class of cases. The proof of this is the undoubted fact that occasionally I manage to get the remedy that is so closely related, according to the index of similarity, that wonderful things happen; and not only do immediately critical or annoying phenomena disappear, but there seems to be a rather permanent improvement in the whole chain of morbid lesions. I am occasionally directed to the effective remedy by certain symptoms which might be termed "*characteristic symptoms*" as an illustration of which might be mentioned the association of palpitation or tachycardia or even weak, irregular, though rapid action *with flatulence* which in some ways seems to cause or aggravate the symptoms. These are good reasons for an effort to adjust lycopus to the case in my own experience.

But as a rule we lack distinct enough characteristics. Indeed, all our data seems to consist of symptoms and signs pathognomonic of the lesions and a group of common-place symptoms such as we often find associated with any one of different heart conditions. There is no way out of this dilemma except the recourse to the repertory.

Now this is just the type of heart case in which one *tries* two or three remedies such as digitalis or cactus or crataegus and finding these unsatisfactory, then he puts the case boldly upon infusion digitalis, assisted by diuretin or upon physiological doses of strophanthus or some other heart stimulant and comforts himself with the thought that anyway nothing can do

much good. The fact that such a patient is often distinctly hurried to her doom by physiological acting drugs, must be taken into account by every faithful medical adviser. Such a patient relieved by a remedy acting directly according to the index of similarity, will have a longer lease of life and a longer period of remission of critical symptoms. At least that is the way my own experience makes me think.

Now we lack exact evidence that apis can produce such lesions of the heart as we are considering, yet we know its oppression, its palpitation, its weak irregular pulse and even pulselessness and we know that it can produce many of the general accompaniments of dilated or degenerated heart. Dr. Weaver was called to the hospital one night to see a man who was supposed to be almost ready to post. He had been suffering from dilatation and general anasarca and remedies had not been effective. On this night he was threatened with suffocation and Dr. Weaver found that an acute oedema had crept up into the trachea and throat, so that all parts visible were much swollen. He said to the Resident, "Why don't you give him apis?" "Apis," repeated the Resident, "and how could you give that?" In the first decimal was the answer. He did not die, but was sent home relieved of the entire morbid picture.

Now our incredibility regarding the virtues of remedies like apis in cardiac pictures so severe as that; and, our indifference to the true cause of increased dyspnoea—as oedema—make us miss the remedy some times. If the Resident had simply guessed that the suffocative features were evidences that the end was near, and had simply increased his digitalis and given something to deaden suffering, the sequel would have been different.

I mention these details because they touch a point of vital interest. Be sure you really know exactly what is making your heart patient go down hill so rapidly, before you assure yourself that everything is being done that can be done.

In children swollen to bursting with dropsical accumulations everywhere, unable to lie or breathe save in the sitting posture, with the kidneys quite inactive, with feeble irregular pulses, I have seen all such things pass away and the child get up and about and live for years after iron was pushed and persisted in to the exclusion of all so-called cardiac remedies.

Now iron becomes a cardiac remedy if the cardiac lesions are made more powerful as agents of destruction because of a severe anæmia. We cannot cure the heart lesions; but we can

make them less destructive if we improve the blood state. That is a remedy selected upon the index of similarity. It produces anæmia, and all its sequels follow in order.

If a dropsy, ascitic and anasarca is so severe as to actually prevent your remedies from having any effect, as we often say of it—then its removal by repeated tapplings and by drainage tubes is called for, not its removal by physiological drugs which will break the patient up, in the effort they make at its removal through the eliminative functions.

We forget that a heart muscle cannot be, as a rule, stronger than the general muscular structures of the body, so we forget massage and passive motions when we forbid our early cardiac case to indulge in any active muscular exercise. Thus we omit the very thing that will do what we hope to do for him—to strengthen his cardiac muscle and keep it strong. We give him medicine and we feed him, but we make him sit or lie and degenerate muscularly. In view of the somewhat constant repetition of failure or of at least unsatisfactory effects from the class of remedies termed cardiac remedies in advanced pictures of heart disease, it seems to me that we might with advantage broaden and extend our knowledge by studying particularly other less common remedies having in their pathogenetic pictures, effects resembling the more common symptoms of advanced cardiac disease. It is my opinion that time thus spent will broaden our outlook on this dreadful class of advanced and progressive cardiac pictures.

There are certain things that one should consider about when he uses physiologically acting drugs in advanced cardiac pictures, and I can illustrate this in the case of digitalis. Do you remember always?

That digitalis does not improve the nervous tone or the nervous force of the body?

That while it acts directly upon the heart muscle and very quickly increases the cardiac power, it is neither a tonic nor does it act as a nutritional remedy?

In large doses it diminishes the nutritional processes.

If you give it when the heart is under a great and continued strain, it may cause collapse of the heart.

It is a gastric irritant and causes nausea and perhaps diarrhœa by irritation.

It increases the output of water from the kidneys; yet does not increase the true excretory functions, and may even if the

dose be long continued cause suppression of even the watery portion of the urine.

It has its best effect when we need a quick remedy as in shock, asphyxia, or sudden heart weakness in a feverish disease as in pneumonia. But even here its effects must be carefully obtained.

When we use it in valvular lesions with growing incompetence of the heart we get its best effects in the first stages of the breakdown. You all know how uncertain is its action in later breakdowns.

II.

LYCOPUS VIRGINICUS IN CARDIAC NEUROSES—REPORT OF A CASE.

BY

E. ROBERTS RICHIE, M. D., MOORESTOWN, N. J.

CLINICAL HISTORY: A woman, aged 32, formerly a school teacher, now married and having two children. Has a nervous constitution, and most of her symptoms revolve around her nervous mechanism. Her heart flutters or palpitates at times and especially at night. It is apt to be worse if she eats a hearty evening meal and most certainly if she indulges in coffee. It will wake her out of a sound sleep, compelling her to sit up suddenly in bed to get relief. At the same time she has excessive flatulence and she can only get relief by continuous eructations.

In the day time she is constantly annoyed by a feeling as if her heart turned over, this symptom being caused by its dropping a beat. There are other nervous symptoms present, but they do not bear on the heart. A number of remedies were tried in this case, but the only remedy that effectively relieves her symptoms is *lycopus virginicus*.

The Virginia hoarhound or bugle weed is one of the newer heart remedies especially useful where the nervous element predominates. Its chief action is on the circulatory system, where we find great cardiac irritability. The pulse may be either quick, hard and wiry, or it may be small, compressible and irregular. We may have associated local congestion of

the lungs, with more or less hæmoptysis. There is a profuse flow of limpid, watery urine, often amounting to 8 or 10 quarts, which may or may not contain sugar. As this is associated with great thirst for very cold water, and emaciation we naturally would think of it in the treatment of either form of diabetes.

With this tumultuous and forceful heart action, which, by the way, can be heard several feet away from the bed, we may find a protruding of the eyeballs so that it should be considered in the treatment of exophthalmic goitre. Especially is this so as we sometimes find a constriction in the larynx and oppressed breathing.

We also find some gastric disturbances especially flatulence, and this aggravates the palpitation due to the pressure on the heart. The action of *lycopus* in relieving this group of symptoms is well illustrated in the case I have just reported.

DISCUSSION BY THE CHAIRMAN (DR. E. LIGHTNER NESBIT):

Two excellent provings of *lycopus* are published in detail in the *Encyclopedia of Drug Pathogenesy*.

The following symptoms and signs stand out prominently as pointing to the heart:

"Constriction" or

"Tenderness in the præcordium."

Pain sub-acute, aching, point at the apex.

"Pressing outwards of the heart, tumultuous and forceful, but not painful."

Cyanosis.

Replacement of the mitral first sound by a blowing murmur.

Second sound (mitral) "pointed, short, sharp, and more emphatic than natural."

Pulse slow, weak, irregular, intermittent and tremulous.

Sphygmographic tracings accompany the original provings as they appear in the 16th Vol. of the *Monthly Homœopathic Review*.

Dr. Richie would add to the value of his interesting report by furnishing us with the physical signs relating to the heart, and his authority for saying that "the pulse may be quick, hard and wiry, or it may be small, compressible, irregular." The provings cited above seem to picture the pulse as "slow, weak, irregular, intermittent and tremulous."

Palpitation "waking (the patient) out of a sound sleep and compelling her to sit up suddenly in bed to get relief" suggests *Spongia* or *Iodine*.

The discussion of palpitation on p. 112 of *Lauder Brinton's "Therapeutics of the Circulation,"* is interesting in this connection.

III.

**CRATAEGUS OXYCANTHUS IN MITRAL REGURGITATION ASSOCIATED
WITH MYOCARDIAL DEGENERATION—REPORT OF A CASE.**

BY

G. HARLAN WELLS, M. D., PHILADELPHIA, PA.

PERSONAL HISTORY: Mr. ——. Aged 50. Merchant by occupation. Well nourished and of temperate habits. No history of syphilis, rheumatism or alcoholism.

History of the Present Illness: About fifteen years ago the patient began to suffer with dyspnoea, pain in the region of the heart and swelling of the lower extremities. He consulted several noted physicians who made a diagnosis of mitral regurgitation and myocardial degeneration. An absolutely unfavorable prognosis was given by all the old school physicians whom he consulted. He then came under the observation of the late Dr. Edw. R. Snader, who made a careful study of the case and prescribed cactus grandiflorus as the remedy. He was given ten drops of the tincture four times a day. Under this remedy the patient steadily improved and within two years his symptoms had been entirely controlled and he suffered no discomfort except slight shortness of breath on exertion. Occasionally symptoms of cardiac embarrassment would appear, but these were always promptly controlled by cactus.

On March 2, 1909, the patient was taken with an attack of influenza accompanied by a distressing cough. There was a good deal of general prostration and the pulse became abnormally weak, rapid and irregular. The attack of influenza subsided in about ten days but the weak, rapid and irregular pulse persisted. Cactus was administered on March 20th, and was continued two weeks with no improvement. I then decided to prescribe crataegus. At that time the following symptoms and signs were present: The patient complained of attacks of cardiac palpitation and shortness of breath, especially after coughing, and stated that he had *a painful sensation of pressure in the left side of the chest below the clavicle*. This was worse when he became tired. He had a slight cough and expectorated a thick, gray mucous. He complained of marked mental and physical fatigue after slight exertion. There were

no disturbances of the digestive or urinary organs. A physical examination showed the pulse rate to be one hundred, the volume was good but there was a decided irregularity as shown by a tracing with the sphygmograph. (See Fig. 1.)

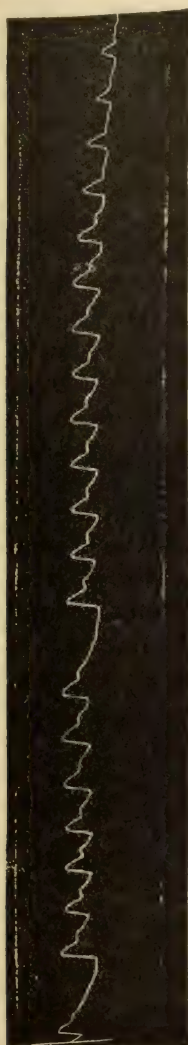


FIG. I.—SPHYGMOGRAPHIC TRACING OF PULSE ON APRIL 1ST, PRIOR TO THE ADMINISTRATION OF CRATAEGUS. NOTE SKIPPED BEATS.



FIG. II.—SPHYGMOGRAPHIC TRACING OF PULSE ON APRIL 11TH, TEN DAYS AFTER BEGINNING THE USE OF CRATAEGUS.

There was no tenderness on pressure over the muscles of the chest. The area of cardiac dulness extended slightly to the left of the nipple line showing a moderate hypertrophy of the heart. There was a loud systolic murmur, heard best at the

apex and transmitted to the axillary region. (This murmur was due to the mitral regurgitation and was present prior to the attack of influenza.)

Crataegus was administered about April 1st, in five drop doses of the tincture three times a day. Improvement began in two days and at the end of ten days the cardiac symptoms had entirely disappeared. The pulse rate dropped to seventy-two, and became entirely regular, as the sphygmographic tracing taken at that time shows. (See Fig. II.) The painful sensation in the left side of the chest ceased and the patient's strength returned to normal. The old murmur, of course, persisted as before.

To me this case has been a very instructive one for the following reasons: First, the results following the administration of crataegus were so prompt, so definite and so permanent that I am convinced they were due, without question, to the action of the remedy. This would seem all the more certain because the patient refused to remain at rest or to modify his usual business habits in any way.

Secondly, the symptoms and signs present in the case were so definite and demonstrable that their prompt removal by crataegus would suggest to us the advisability of future observation for the purpose of determining whether or not crataegus will always influence favorably this group of symptoms.

Thirdly, I would like to urge the importance of a more careful proving and of further clinical study of this valuable remedial agent in cardiac diseases.

IV.

ARSENICUM ALBUM IN CARDIAC NEUROSES—REPORT OF A CASE.

BY

H. F. SCHULTZ, M. D., PHILADELPHIA, PA.

CLINICAL HISTORY: A police officer, 34 years of age, tall and of medium weight, perfectly well until six months ago; came to me complaining of shortness of breath, worse when exercising and on long standing. He had a slight cough—more like a bark, with little or no expectoration. He was sallow and very nervous.

He had been under other treatment for several months; his improvement being both slight and only temporary. He had been given prescriptions containing strychnia, nitroglycerine and fluid extract of digitalis. As there were no evidences of ruptured compensation of or circulatory failure, I do not know why he had been given digitalis.

I examined his chest (he had just gotten out of bed) and found nothing abnormal. His pulse rate was 80 per minute and was regular. The lungs were normal. In order to study his case in the interim I prescribed heroin for his cough and told him to call at my office in a few days. I next saw him after his day's work and after a careful examination could discover nothing to indicate a lesion of the valves or of the heart muscle. But I did find the heart sounds rapid and faint, increased on slight motion, but both distinct. His pulse was only of fair tension and compressible, running at 85-90.

I then questioned him as to his habits and found him to be a heavy user of tobacco in all forms, and a mild user of alcoholics. I therefore decided his case to be one of a type of cardiac neurosis, due to his general nervous condition brought on by excessive use of tobacco. He was instructed to moderate his use of tobacco, and I prescribed arsenic in the 3x tablet trituration, giving him 3 tablets every 2 hours. The improvement was noticeable after a week's taking of the drug, and continued until all symptoms disappeared, except the cough. This I discovered to be due to a laryngeal inflammation, presumably due to the inhaling of the tobacco fumes when smoking.

DISCUSSION BY THE CHAIRMAN.

The general asthenia locally expressed is well marked in Dr. Schultz's case.

Sollman in his pharmacology discussing arsenic, says. "A relaxation of the walls of the capillaries, particularly of the splanchnic area. . . . causes secondary disturbances in the function of more remote organs."

"General pulsation visible and audible especially when lying upon the back," with "pulse rapid, weak and irregular," "with dyspnœa and faintness," can easily be expected in these cases.

V.

STROPHANTHUS IN ENDOCARDITIS AND ACUTE DILATATION OF THE HEART—REPORT OF A CASE.

BY

W. J. TOMLINSON, M. D., PHILADELPHIA, PA.

A LITTLE girl, aged $3\frac{1}{2}$ years, was brought to me for treatment February 8th.

Family History: Good.

Recent History: Had not been well since she had diphtheria one year ago. Six weeks ago started with a dry cough < at night. Cough gradually getting < with dyspnoea at night, has to sit up to breathe. Losing weight rapidly. Appetite poor. Vomits after eating solid food. Bowels regular. Urine small quantity, dark color. No night sweats.

Physical Examination: Edema of lower eyelids. The mucous membranes show evidence of anaemia. Pulse, 150, weak and irregular. Lungs negative. Heart is enlarged. Apex at sixth interspace, one inch to left of nipple line. Apex beat diffuse. Loud blowing murmur heard all over the chest, front and back, most intense in the region of the apex. Second sound not audible. Twenty-four hours' urine, one pint, very dark, S. G. 1030, albumen negative, casts negative.

Strophanthus, first decimal from the tincture, five drops every three hours was prescribed.

February 10th: Cough less, sleeping well at night. Heart, second sound audible, pulse 128 and regular.

February 19th: Cough less, sleeping well at night. Heart, second sound stronger, pulse 110, regular and strong.

March 6th: Cough gone, appetite good, plays most of the day in bed. Heart, second sound strong, murmur softer, pulse 108.

March 22d: As above, allowed to play on floor.

April 17th: Gaining weight, plays out of doors with other children. Pulse 108. Medicine given three times a day.

May 3d: Heart well compensated. Medicine discontinued.

VI.

ACONITUM NAPELLUS IN MITRAL REGURGITATION—REPORT OF A CASE.

BY

R. C. HOFFMAN, M. D., NARBERTH, PA.

CLINICAL HISTORY: A woman, aged 39 years. Gave a history of rheumatic fever during childhood. Has a large family and works hard. Is very nervous.

Upon examination of the heart I found her apex beat slightly displaced outward, heart dulness extending a little to the left. A systolic murmur was heard at the apex, transmitted to the left and back. Accentuated pulmonic second sound.

I was awakened one night by a small boy, and told to come right around and see his mother as she was in a "bad way," as he said, with a "heart spell." I took my emergency bag, containing rapid stimulants, such as aromatic spirits of ammonia, brandy, and camphorated oil. When I entered the patient's room, she said, "Oh, Doctor, I am afraid I am going to die, and I don't want to go now, and leave my little children." I felt her pulse and found it a fairly good quality and a little irregular in force rather than in rhythm. She also complained of some numbness and tingling in the left arm. I did not think she needed an immediate stimulant, so I began to think of my homœopathic remedies and the first one I thought of was aconite. After talking with her and assuring her she would not die, I gave her aconite 3x, 15 gtts in a half a glass of water, a teaspoonful every hour. I called again in the morning and found her much improved, so I left her aconite 3x on tablets, and told her to take 4 every 2 hours. As long as she takes the aconite 3x she is all right, but when she runs out of the medicine she has an attack of what she calls "heart spells."

VII.

SULPHUR IN ACUTE DILATATION OF THE HEART—REPORT OF A CASE.

BY

OLIVER H. PAXSON, M. D., PHILADELPHIA, PA.

CLINICAL HISTORY: The case that I have to present to-night is one of acute dilatation in an elderly man following sudden

exertion. He is fifty-nine years of age and a laborer and one who is regular in his work and habits, and has had so little sickness that he can not recall any time since his childhood that he has had to be away from his work because of any illness. About a month ago (March 6th) while delivering a heavy package of hardware which he had to carry up several flights of stairs he was suddenly taken with great shortness of breath and a clutching sensation in the epigastrium. His distress was so intense that he had to be taken to the Hahnemann Hospital. He refused to remain in the hospital and after two days of resting attempted to do his regular work. This he has been unable to do as with any exertion, even as in walking, dyspnoea and a jumping sensation in the epigastrium (palpitation) developed at once. He was unable to lie down comfortably because of the oppression in his chest, and was most comfortable when sitting up, even to sleep.

April 12th, when I first saw him, he said that suddenly the day before he had noticed his legs were swollen and that in the past twenty-four hours it had increased so much as to alarm him. He also complained of a cough which he described as dry and racking and with a frothy expectoration.

He admitted passing urine two or three times each night. His appetite was good and did not have any unusual thirst. Stools twice daily.

The urine was examined and found to be clear, amber in color, 1015 in specific gravity, markedly albuminous and with an occasional hyaline cast.

The physical examination of the heart showed the impulse to the left of the nipple, the first sound of the heart weak, and no murmur present. Cardiac dulness was increased. The pulse was very irregular in force and rhythm and increased in frequency, counting 112. The lungs were vesicular with a few subcrepitant rales in the base of the left lung posteriorly. His face had an unnatural flush about the cheeks not due to fever, as his temperature was normal.

His head ached him and it had been aching for the past month with such intensity as to nearly craze him. He spoke of the headaches as having occurred periodically for years, the pain starting in the vertex and then radiating down the back of the right ear, accompanied with roaring in the ears. He also had vertigo and dizziness.

Sulphur 30x was prescribed for him and he was ordered to

bed in the hospital and put upon a low diet. The response to treatment was immediate. The oedema lessened each day, the dyspnoea decreased, the cough disappeared and he was able to sleep well lying down. He lost five pounds in weight (fluid) in twelve days. Albumen disappeared. Pulse became slower and more regular. He was discharged the twenty-fourth day after being admitted to the hospital with a temperature of 98.2 at 1 P. M., a pulse of 88 and respiration of 18. The blood-pressure on the ninth day registered 180. The thickened condition of his arteries accounted for some of this. Some one remarked that "the result was as good as if he had taken a diuretic."

While allowing a certain amount of change in this man's condition to his rest in bed I do claim for the sulphur 30x a good proportion of the result, that it did the work quickly and promptly and that the result was a more permanent change than could have been produced by any other drug.

THE RATIONAL TREATMENT OF TABES DORSALIS IN RELATION TO ITS PATHOGENESIS.—According to Nageatte, the pathologic basis of tabes is constriction of the radicular nerves by chronic syphilitic meningitis. The myelitic degenerations are secondary. As the posterior radicular nerve fibres are devoid of neurilemma sheaths proximally to Obersteiner's ring, regeneration can take place only distally to that point. The fibres of the anterior roots, however, may regenerate; providing cicatrization of the lesion has not taken place.

The author believes that failures, in the past, of mercurial treatment have been due to "faulty methods of administration, hasty generalization, and overexpectation." Inunctions are not considered advisable because of posologic uncertainty, inconvenience, and the annoyance which is caused by this form of treatment. The administration of mercury by the mouth results in gastric derangement and uncertainty of absorption. The hypodermic method of medication is considered to be free from the above objections. The morphologic result of arrest of the fundamental disease process is like that which occurs in the lungs after the cure of phthisis. Symptomatic improvement can be expected to proceed only to a point commensurate with the number of nerve paths which are left open to re-education. The cure of the inflammatory process is compared with the removal of a cerebral neoplasm which has caused choking of the optic discs for a sufficiently protracted length of time to result in blindness. The patient is cured as far as the tumor is concerned, but the blindness is permanent. Therefore, early diagnosis and treatment are necessary in order to insure the best results. The Wasserman and Noguchi reactions are of value in making the diagnosis.—Tom A. Williams, *Medical Record*, April 10, 1909.

THE TREATMENT OF NEURASTHENIA.

BY

CHARLES D. FOX, M. D., PHILADELPHIA, PA.

THOSE who present symptoms which are commonly understood to signify neurasthenia are too frequently told by their physicians that their illness is only neurasthenia or, and what is far worse, that it is only imaginary. They are then given some time-honored drug like strychnine and, without any explanation of the nature of their symptoms and without any words of encouragement, they are quickly ushered out. Perhaps this is done with the hope that they will not return, because they are so uninteresting and so tiresome. In fact, after such an insult to their reason, as implied by the assertion that the complaints are imaginary, and after such treatment, they are not apt to return.

The diagnosis of neurasthenia is often made on the evidence afforded by a few symptoms which really are not pathognomonic; and this may be accomplished without the possibility of the presence of some other, and perhaps more serious, disease having first been eliminated. We should never make this diagnosis except by a process of elimination, because neurasthenic symptoms are quite commonly found in association with other diseases against which the treatment should more properly be directed. Therefore, a thorough examination of such patients, besides being essential, will decrease the unwarranted frequency with which the diagnosis is abused.

On the other hand, patients who really have neurasthenia are often told of their physical imperfections with an unnecessary amount of solicitude, and without being reassured as to their harmless nature. These admissions of facts which, because of their insignificance, should be concealed from the patient, or at least carefully explained to him, may greatly aggravate the condition by giving him additional cause to worry. A well compensated and practically harmless mitral regurgitation, for instance, may be made a nucleus around which the patient keeps grouping a number of psychogenetic symptoms until a "cardiac neurosis" is developed with all its attendant and distressing symptoms.

According to the modern conceptions of the clinical syn-

drome which has been perhaps inaptly designated neurasthenia, the bodily symptoms of this condition which are made subject of complaint by the patient are but pathologically elaborated coenesthetic impressions which normally are not synthezized with consciousness, or they are effects of functions which have been perverted as morbid consequences of the influence of the mind over the body (gastric neuroses—functional impotence—etc.). These two kinds of symptoms, as well as those which are more evidently mental in origin (irritability, failing memory, loss of ambition, worry, etc.), are purely the result of psychic disaggregation. This form of psychic disorganization may find expression, however, as more or less clearly defined types of any of the various functional neuroses which, for convenience and clinical purposes, have been called neurasthenia, psychasthenia, hysteria and multiple personality.

Now it is well known that there is no routine treatment which is of value in all cases of any one disease, and this fact applies more particularly to psychic abnormalities. In the treatment of any disease attempts should be made to individualize the patient, but when dealing with diseases whose origin is in the pathologic functioning of the mind then additional reasons for individualization are afforded by the great diversity of even normal minds.

By a process of ratiocination, then, we are justified in the conclusion that there can be no successful routine treatment of neurasthenia. Some neurasthenics, for example, may recover under some therapeutic method whose mainstay is rest; others, who would be aggravated by rest, might derive benefit from some carefully selected and agreeable form of occupation. Again, change of environment is all that is necessary to effect the "cure" of certain cases, while in others it might be followed by most unpleasant results.

Before he can expect to obtain any beneficial results of treatment, the physician must certainly secure the patient's confidence; otherwise, all therapeutic resources will be of no avail. Furthermore, and as the logical effect of this confidence, plus the knowledge imparted by the physicians of the curability of his disease, the patient must be induced to anticipate his restoration to health.

Inasmuch as the induction of a state of expectant attention usually must precede amelioration or cure, so it is of the utmost

importance for the physician to strive to secure this end by means of explaining fully, during the patient's first visit or visits, the nature and significance of his symptoms. He should be assured that no matter how serious his symptoms may seem they have no organic foundation and they can do him no harm. If he is intelligent enough their psychic origin may be explained.

Then, during subsequent visits, the symptoms should be treated with judicious neglect; otherwise, by keeping the patient's attention directed to them, they are apt to become more fixed. For the same reason patients should be told never to talk about their ill health, or other troubles, and always to discourage the same kind of elevating topics of conversation upon the part of others. It is wise even to tell them that if anyone asks them how they feel to reply that they feel well, in fact that they never felt better in their lives, and then to change the subject.

Now, as the giving away to abnormal emotions increases and prolongs the emotional tone so patients should be instructed not to surrender to their feelings, and as emotions actually may be caused by voluntary simulation of their modes of expression so frowns, and other evidences of mental depression, should be dissipated by the substitution of smiles and other attempts to mimic the expression of happiness. These measures alone often produce beneficial results which are sources of surprise to both the physician and the patient.

Having secured the patient's confidence and active assistance and having induced a state of expectant attention, the battle is already half won.

Before committing oneself to any form of treatment it is wise to ascertain what methods already have been employed, and from what forms of treatment the patient would expect to derive benefit. Having done this, the physician naturally would not adopt any measures which already have been unsuccessful and he would do well intelligently to use, to a certain extent, those agents which the patient regards with favor, for the reason that he would be more apt to anticipate auspicious results.

The so-called rest cure owes its efficiency principally to isolation of the patient from his sympathetic relatives and friends, to change of environment, to careful supervision of nutrition and, in a large measure, to the great impression which it makes upon the mind of the patient, together with the influence of the

more patent suggestions of the physician and nurse. The recoveries which it produces are in direct proportion to the intelligent manner and thoroughness with which the technique is carried out.

Though good results may be obtained by the rest cure this form of treatment, as Prince and others have remarked, may be positively detrimental to the patient, because it may have a tendency to fix the symptoms—to render them more permanent. This disposition is greatly increased by poor technique. Furthermore, the rest cure has such a reputation that if it fails the case becomes almost hopeless. The active man who is accustomed to apply his time to the best advantage is disinclined to submit to the enforced inertia of the rest cure and if he does so he will be fretting continually about the inexcusable waste of time.

The excessive mental and physical fatigue which is so obtrusive and from which the name of the disease is derived, is purely a psychic fatigue and, as such, enforced rest is not necessarily indicated. If a patient is mentally tired because he is unable to find any object of interest to him upon which he can fix his attention, then it would seem but rational to assist him in this respect by finding some employment which will engage his attention and therefore which will distract his attention from himself. This would seem preferable to putting the man at rest in bed for at least several weeks. If the fatigue is expressed as being physical then the same still holds true, because this exhaustion is only the projection of mental fatigue. If, as one of the features of his neurasthenic complex, a man becomes tired of the routine of his usual occupation and if he cannot anticipate with pleasure the difficulties he is to face and to overcome, then he may feel physically exhausted even to the extent that he believes himself to be unable to walk to his office or to work if he does arrive there.

Any therapeutic method which aims at or necessitates distraction of the patient's attention from himself will surely be decidedly beneficial, providing the patient can be induced to carry out the measures in a whole hearted manner. Therefore, social intercourse should be encouraged, but only with optimistic friends. Many neurasthenics are injured by social intercourse simply because their kind friends are so sympathetic, and because they so delight in talking about the patients' ailments and other troubles.

It is because of this tendency of friends and relatives to be constantly reminding the patient that he is a very ill man that isolation is of prime importance in some cases. But by isolation we mean not so much total isolation as we do removal from the pernicious influence of these sympathetic friends and relatives.

As to advising travel, we must remember that if the patient thereby cannot be induced to withdraw his mind from the cares of home, then travel will aggravate the condition just as a rest cure would be detrimental to the energetic man of affairs.

Electricity, hydrotherapy and forced feeding, while of value are not indispensable.

The usual routine manner of treatment with drugs is mentioned in order to be condemned. A drug which is given to these patients in physiological doses and thereby acts in any other way than by improving the general bodily condition will certainly harm the patient eventually. Strychnine, the favorite remedy and one which I formerly used, without having observed any successful results, stimulates the patient when, in reality, he should not be stimulated by such means. Its use in this disease is somewhat similar to the indiscriminate use, when it is not indicated, of digitalis in cardiac diseases.

The administration of bromides only increases the morbid depression and, besides, these drugs are of no value at all in neurasthenia.

As has been shown by many writers, the use of compounds of phosphorous is unscientific; there being no indication for the use of this element. Besides this the quantity which is ingested as medicine is insignificant as compared with the amount present in various ordinary foods.

However, as patients generally expect to receive medicine and as such treatment is a valuable factor in the psychotherapy of neurasthenia, some remedy which at least is harmless, should be prescribed. The physician would do well to refrain from giving any medicine at all to those who are disgusted with the drugging to which they already have been subjected—and there are many such.

The attempt has been made in this paper to show the great importance of psychotherapy and psychic re-education in the treatment of neurasthenia. Most of the methods of treatment of this disease are successful only by reason of the skillful application of suggestion which they imply. In fact, any method

of therapeusis which is not based upon suggestion is of little value when applied to any of the functional nervous diseases.

Some physicians may believe that they have never made use of suggestion and that their efforts have been attended with success, notwithstanding this apparent deficiency. But these do not consider the unconscious suggestion which enters very largely into the treatment of all diseases and which is a constituent of the relations between patient and physician. For instance, the fact alone that a drug is prescribed, even if without any explanation of its value or words of encouragement, arouses in the minds of most patients expectation of beneficial effects.

Many physicians who are very successful in treating the functional neuroses owe their success to the use of what to them is unconscious suggestion. Indeed this factor is what helps to engender the "wonderful personality" of which we hear so often when physicians are discussed.

Hypnotic suggestion, which secures such brilliant results in the treatment of hysteria, is of value in but few cases of neurasthenia. It is worthy of trial in selected cases.

THE TIME FOR OPERABLE TUBAL PREGNANCY.—Baer (Philadelphia) has contributed his views in the rather general consideration which this question has received during the past year, and says: Extrauterine pregnancy is a surgical disease and operation is always indicated, but conditions, should govern in deciding when and where the operation shall be done. In the early recognition of nature's distress signs, metrorrhagia and pain, and in prompt operation before complete rupture and collapse have occurred, lies the safest course. If profound collapse exists, as a rule, it will be safest to bring about restoration and to improve the environment before operating.—*Amer. Jr. Obs.* Vol. 59, 29.

Stillwagon (Pittsburg) has also considered the question, and concludes his article by saying that these extreme cases, which constitute a small percentage, are operated upon immediately by some, an intravenous saline solution being given before or during the operation. I agree that such cases should be tided over the state of shock by repeated hypodermoclysis, absolute rest, elevation of the foot of the bed and not too much cardiac stimulation for a period of twenty-four hours to several days, when the operation is sure to be better borne. The plan of treatment he has followed has been laparotomy as soon as the diagnosis was made, provided the patient has attained the best possible condition consistent with the pathology present.—*Ibid.* page 35.

ATONIC DILATION OF THE STOMACH.

BY

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THAT atony of the stomach is a far more common lesion than is ordinarily supposed is the conclusion I have reached after careful study of many digestive disorders. The frequency with which I have met this condition has led me to write this paper in the hope that it will stimulate a search for this much overlooked affection when the general methods for so-called indigestion fail. As Cohnheim says, "These cases usually go the rounds of doctors and finally fall into the hands of neuropaths where a brilliant cure is made while the same cure could have been accomplished by a proper diagnosis." It is surprising to see how quickly some neurasthenics respond when a dilated stomach is contracted. Frequently in the course of neurasthenia when the general health has markedly improved there is something which retards further progress. In a great many of these cases if an atonic dilation is discovered and the organ properly treated the patient rapidly recovers. I have seen this so often that I usually begin active treatment against the dilation even if slight.

Definition.—A congenital or acquired weakness of the stomach walls, with increase of capacity and delay in evacuation of the gastric contents.

Unlike dilations due to obstructions, the atonic dilations are not usually so great in size. The greater number correspond to the first degree dilations due to obstructions, where moderate dilation is present and compensation exists. Dilations corresponding to second degree dilations with obstruction, are sometimes found but not so great in number. Compensation in second degree atonic dilations, if I may use the term, is better, stagnation seldom being found.

Etiology.—Any condition which markedly lowers the general body tone—such as typhoid, tuberculosis, diabetes, neurasthenia, etc.

Dyspepsia where the taking of food gives distress and where the patient becomes afraid to eat, with consequent loss of weight.

Overeating especially after typhoid, or the drinking of too large amounts of fluids.

Chronic gastritis of the interstitial type especially where the mucous membrane and muscles are involved.

A congenital or acquired habitus enteropticus.

Symptoms.—Considering how varied are the digestive symptoms I will give only the cardinal ones. Sensation of weight, drawing or fullness in the epigastric or left hypochondriac regions, especially after eating or drinking. A splashing sound in the stomach after drinking or even when a very small amount of chyme is present can easily be detected. Autotoxic symptoms such as tachycardia, dyspnoea, or hallucinations. I would like to emphasize here hypochondriasis as a very prominent and constant symptom. I have in mind a business man who for a number of years was considered a confirmed hypochondriac. His chief complaints were belching of large amounts of gas, with an unbearable dragging in the left hypochondriac region after eating. When the stomach was empty his mind was clear and he could work like the rest of his fellow men but as soon as he ate and digestion began, he became sleepy, could not concentrate his mind and had hallucinations of various sorts. Upon washing his stomach during one of these seizures he would invariably regain his mental poise in about half an hour. An analysis after Ewald's test breakfast revealed free hydrochloric acid present, total free acid sixty, and a total acidity of one hundred and twenty—habitus enteropticus negative, the larger curvature on reclining one finger breadth below the umbilicus. Standing with Einhorn's gastric diaphane introduced the larger curvature was seen about two finger breadths below the navel. Attention to diet, and general health, reduction of the acidity and contraction of the dilation soon restored this man to his normal state.

Rapid satiation of appetite with gaseous and acid eructations are often prominent symptoms.

Constipation is usually the rule.

Diagnosis.—Here the so-called habitus enteropticus plays a prominent part. I feel too little attention has been given to this phase. I have verified it in about ninety per cent. of the cases of functional gastric disorders. For those who are not familiar with the term I will quote verbatim from Cohnheim: "In habitus enteropticus a vertical line drawn between the ensiform process and the umbilicus would be much longer than

a line drawn at right angles to this vertical line and extending to the anterior axillary line. In normal habitus, on the other hand, this vertical line would be shorter or of about the same length as the line perpendicular to it extending to the anterior axillary line."

The significance therefore of habitus enteropticus is that the position of the stomach would be lower than in normal habitus, consequently too much dependence must not be placed upon the position of the lower border of the stomach without first determining the patient's habitus. It is also generally supposed that those having a habitus enteropticus are predisposed to functional rather than organic disease. Washing of the stomach six to seven hours after Riegel's test dinner (a plate of soup, 150 grams of beefsteak, a roll, a small dish of potato puree, some stewed fruit and a glass of water) will show some food particles if dilation exists. Einhorn's gastric diaphane is undoubtedly the most positive means for detecting a dilated stomach. It is not more unpleasant than the stomach tube, and with a little practice is just as easy to introduce. For those who are not familiar with the diaphane I will give a brief description. It consists of an ordinary stomach tube, about three feet long, into the distal end of which is fitted a small one or two candle power incandescent light. Running through the tube and connecting the lamp with the battery are two wires. The battery can be one of the portable type with a rheostat for controlling the power of the light. Before introducing the diaphane the patient is told to drink a tumblerful of water which better aids the transillumination. When the current is applied and the epigastrium gently massaged in a dark room the position and size of the stomach can be easily seen.

Inflation of the stomach with tartaric acid and sodium bicarbonate is not to be commended. There is danger of stretching the stomach and lacerating perigastric adhesions.

Prognosis.—This depends entirely on the amount of dilation. Where compensation is good the prognosis is generally very favorable. Where stasis is not too pronounced the result is also fairly good. Where the dilation is so pronounced that vomiting is a persistent symptom, and the dilation far below the navel all that can be hoped for is alleviation or recourse to surgery.

Treatment.—Here as in other diseases the physician must in-

dividualize his cases, and treat accordingly. Since the majority of these patients are anemic, emaciated and neurotic a thorough rest cure is of prime importance. Absolute rest with plenty of ventilation, and a nourishing diet will some times restore the stomach without other means.

Diet.—This should be adjusted in accordance with findings of the gastric analysis, and the amount of calories prescribed in accordance to the general build of the patient. A large framed person would naturally require more nourishment than one of smaller frame. Instead of giving three large meals during twenty-four hours, five light ones would be better. As the patient's digestion improves more and more food can be added until thirty-five to forty-five hundred calories are taken daily. I give below a sample diet with which it is well to begin, gradually adding as the patient's condition warrants.

7.30 A. M. Cereal, such as cream of wheat, wheatlet or strained oatmeal. One or two soft eggs. Cocoa-milk-toast and butter.

10.00 A. M. Glass of milk, zoolak or koumys. Crackers and butter.

1 P. M. Piece of tenderloin steak or the white meat of chicken. Mashed potatoes, or thick rice. Bread and butter. Weak tea or Vichy water.

4 P. M. Same as 10.00 A. M.

6.30 P. M. Soup with barley or vermicelli. Puree of rice, beans or peas. Meat, as beef, lamb or chicken, broiled or roasted. Spinach, asparagus, boiled onions, string beans or tender green peas. Tea or milk. Bread and plenty of butter.

Or

7.30 A. M. Wheatlet, cream of wheat or oatmeal.

10.00 A. M. Koumys, zoolak or milk. Crackers and butter.

12.30 P. M. Piece of tenderloin steak, lamb chops broiled or the white meat of chicken. Mashed potatoes or thick rice, white bread, two slices; cocoa or milk.

3.30 P. M. Same as 10.30 A. M.

6.30 P. M. Farina, hominy or rice boiled in milk, one plateful. Two poached or soft boiled eggs. White bread and plenty of butter.

Electricity.—Faradic current by means of the intra-gastric electrode and the epigastric pad certainly is of the utmost value. After one or two treatments the slight discomfort usually experienced at first is overcome. Frequently the patient

noting the relief of subjective symptoms is anxious for the next treatment. The apparatus needed is an ordinary Faradic battery, and intra-gastric electrode and an epigastric pad. The technique is simple: A glass of water is swallowed, the intra-gastric electrode passed the same as an ordinary stomach tube and connected to the battery. The epigastric pad is next thoroughly wet and applied to the epigastrium and connected to the battery. Next the current is started and increased until the patient feels it quite plainly. Ten to fifteen minutes is about the usual length of treatment given.

Hydrotherapy.—Hot and cold moist applications applied over the stomach and intestines do much to restore tone.

Constipation.—Olive oil given high in the colon and retained all night is no doubt the best way toward permanently correcting this common condition. I have known patients who were constipated all their lives to be benefited so quickly and remain so that it was surprising.

Lavage.—Considering that stagnation of food in this condition is not frequent, washing of the stomach is not often indicated. If necessary nitrate of silver 1-1000 or normal saline is all that is required.

An abdominal supporter does much toward relieving distress.

Medicines.—Here again we must depend largely on the result of the gastric analysis. If hyperacidity exists the following is of great service:

R

Magnesia Usta, grs. 2.

Bismuth subnitrate, grs. 10.

SIG.—To be taken as one dose twenty minutes before eating, three times daily.

Or

R

Ext. Belladonna Foliorum, grs. 3-5.

Magnesia oxide.

Soda Bicarb. aa ʒiv.

M.

SIG.—A teaspoonful one or two hours after meals three times daily.

If underacidity—

R

Acid Hydrochloric Dilute.

SIG.—Ten to thirty drops in a wineglassful water, through tube three times daily.

In conjunction with the usual indicated remedy the following are usually of great value.

Fluid ext. Condurango, one-half to a teaspoonful t. i. d.

Tr. Gentian, one-half to one teaspoonful t. i. d.

Tr. Physostigma, fifteen minims t. i. d.

Sodium brom., ten grs. to one dram of Aqua menth. pip.

SOME DON'TS IN OTOLGY.

BY

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IN looking about for a subject that would interest both general men and specialists, I decided upon that of "Some Don'ts in Otology," and trust that the importance of the subject will appeal to you as we proceed with the paper.

The number of don'ts in any branch of medicine must necessarily increase and keep pace with the advance of knowledge of that branch. This is especially true with regard to the branch known as Otology. Not every don't in Otology will be considered, but only those which occur to me at this time as the more important. These are:

1. Don't inspect any patient's ears nor use instruments without first making functional hearing tests of both ears separately. This requires no special apparatus and can be made by any family physician. Note the hearing distances for conversational and whispered voice and the watch. Make a record of them with the date. Neglect to do so may lead not only to error but to subsequent legal complications.

2. Don't forget in every unilateral case to systematically examine both ears; neglect to do so may deprive one of information which may be of value in the diagnosis and treatment of the affected ear; for instance, though the contour and diame-

ter of the canals vary considerably in different individuals, they are symmetrical in the same individual. The contour of the canal is especially important in the diagnosis of mastoiditis. The diameter and direction is important for inspection and paracentesis of the membrane. These are but few of the many other reasons why examination of both ears is necessary in every case.

3. Don't use any but freshly sterilized instruments in any one's ears, because of the danger of an exogenous infection of the canal with resulting otitis externa, etc. In the case of middle ear suppuration, such a complication produces narrowing of the canal with retention of pus and its serious consequences.

In the case of middle ear suppuration with cholesteatoma, the dangers from the use of unclean instruments are still greater. A previously uninfected cholesteatoma may become infected and the resulting explosive like swelling of the infected cholesteatoma spreads a fresh infection; in fact, an infected cholesteatoma leads to the most grave intra-cranial complications with which we have to deal.

4. Don't neglect to ascertain whether you have an acute or a chronic condition to deal with. Remember that many cases coming to you with the history of acute trouble are really suffering from chronic conditions. This is especially true with regard to middle ear suppuration. A familiar instance is that of a patient, usually an adult, who comes with the claim, that he is suffering from his first attack of abscess of the ear, when in truth he is suffering from a recurrent attack. The interval between the attacks may have covered a period of many years. The solution of the question may have an important bearing upon the prognosis and treatment. In the majority of instances the history alone will be sufficient for one to make a positive diagnosis.

The first attack of acute middle ear suppuration, prior to rupture of the membrane, is characterized by four cardinal symptoms: (a) pain (earache), (b) impairment of hearing, (c) fever, (d) redness and swelling of the tympanic membrane. Less constant symptoms are mastoid tenderness, vertigo, tinnitus, etc. These symptoms endure usually for from two to four days, relief coming in untreated cases with spontaneous rupture of the membrane.

In the cases of a recurrent attack of acute middle ear suppuration or an exacerbation of a chronic attack, these cardi-

nal symptoms are much less pronounced and endure usually for a few hours, rarely as long as twenty-four.

5. Don't perform a paracentesis in the case of simple myringitis (inflammation of the tympanic membrane), because it is not necessary, and, too, there is the danger of spreading the infection to the middle ear.

The otoscopic appearance of myringitis may in rare cases resemble closely that of the early stage of acute middle ear suppuration; however, in myringitis the swelling and redness of the membrane is not so diffuse as in the case of acute middle ear suppuration; besides, in myringitis we have almost invariably multiple vesicles on the membrane, which later rupture and discharge serum, sero-pus or blood. Hemorrhagic vesicles indicate usually infection from influenza, less frequently typhoid. As a further aid in the differential diagnosis, we have in myringitis a much milder condition than that of acute middle ear suppuration; besides, there is absence of intense throbbing pain, marked impairment of hearing and mastoid tenderness which are present in acute middle ear suppuration.

6. Don't operate every case of acute middle ear suppuration in which you find early mastoid tenderness. Remember that in every acute attack of middle ear suppuration the inflammation extends to the mucous membrane lining, the mastoid antrum and cells and that some tenderness may be present. In favorable cases this subsides spontaneously within a few days. Resolution may be hastened by rest, application of heat and internal administration of the indicated remedy. On the contrary—

7. Don't fail to operate every case of mastoid involvement which develops after the fourth or sixth week of acute middle ear suppuration. These are the cases where, after a longer or shorter period of improvement, there is a sudden relapse with the following symptoms—(a) pain in the ear and over the mastoid, (b) fever, (c) tenderness over the mastoid, (d) swelling over the mastoid with or without fluctuation, (e) diminished mobility of the periosteum over the mastoid, (f) narrowing of the external canal from depression of the superior, posterior wall of the osseous canal, (g) characteristic position of the auricle, displaced away from the side of the head, forward and downward, etc.

8. Don't, in case of sub-periosteal abscess (denoted by fluctuation over the mastoid) practice the operation of simple incision after Wild; in these cases there is an existing fistula lead-

ing to the antrum, which should be enlarged; besides, the affected mastoid cells should be removed and drainage effected directly from the antrum itself.

9. Don't allow cotton to be worn in the canal of patients suffering discharge from the middle ear, but advise rather the use of wide mesh sterile gauze. Cotton is a poor absorbent of pus, and for this reason its use in the canal serves as a plug to dam in the secretion, while gauze, because of its capillary property, acts like a wick and aspirates the discharge from the middle ear spaces.

Examine a piece of cotton which has been worn in the canal for twenty-four hours or longer, and it will be found that the internally exposed surface is moist while that externally exposed is perfectly dry. In other words, the secretion has soaked but a short distance into the cotton and has become more or less matted there. On the other hand, examine a piece of gauze which has been worn for a shorter period in another case having the same amount of secretion, and it will be found that the gauze is saturated uniformly from end to end. These facts speak for themselves and need no further argument.

10. Don't use iodoform powder or iodoform gauze in the canal of a patient suffering middle ear suppuration and especially in young children with sensitive skin, because there is danger of producing an iodoform dermatitis. The associated swelling of the skin in case of dermatitis naturally diminishes the calibre of the canal and proportionately interferes with drainage and our attempts at local treatment.

11. Don't, in cases with copious discharge from the middle ear, use insoluble dusting powders; such powders are prone to cake and form pasty or solid obstructions, which lead to interference with drainage. On the contrary, our efforts should be directed toward the use of every possible means to favor drainage.

12. Don't forget that facial palsy in the course of acute or chronic middle ear suppuration is an imperative indication for one of the mastoid operations.

13. Don't neglect to examine the nose and throat of every patient suffering with middle ear diseases, especially in children. Remove all adenoids and hypertrophied tonsils promptly and put the nose and throat in as healthy a condition as possible.

14. Don't forget that rupture of the tympanic membrane by indirect injury occurs almost invariably in those cases which

previously showed atrophy of, or atrophic scars in the membrane. This is an important fact to remember in medico-legal cases.

15. Don't forget that herpes zoster about the auricle, in the canal or on the membrane, associated with pain (earache), impairment of hearing, vertigo or tinnitus, or all of these combined, points decidedly to a neuritis of the eighth nerve and not to middle ear affection.

16. Don't forget that there may be pus in the middle ear of a patient whose membrane, at the time of your otoscopic examination, shows nothing more than a dull, gray, opaque appearance. These are cases which often result seriously.

The writer had the opportunity of seeing two fatal cases of purulent meningitis following pyogenic infections of the middle ear where the membrane showed only this dull, gray, opaque appearance. The reason is not quite certain, but the possibility is, that there is a pre-existing thickened and resistant membrane which does not rupture at the opportune time and the infection spreads in some less resistant direction; in the meantime the tympanic membrane which may have previously shown evidence of congestion loses it again and appears pale.

17. Don't perform an intra-tympanic operation where a simple or radical mastoid is indicated. The most experienced men of to-day see less indication for the intra-tympanic operations than formerly and proportionately more indications for the mastoid operation.

18. Don't use water, or in fact liquids of any kind in the ears of a patient suffering either a traumatic rupture or a dry perforation.

In reference to the subject I may mention a case of severe mastoiditis referred to me by Dr. Walter H. Phillips, of Cape May. A boy, 15 years of age, while rolling on the grass with some companions, had the misfortune to have one of his tympanic membranes ruptured, presumably by a stubble. The mother, noticing some blood in the canal and believing in cleanliness of all wounds, naturally syringed the ear with water; this was followed promptly with middle ear suppuration and subsequently with violent mastoiditis. This same don't applies to cases of basal fracture with blood oozing from the ear. Water used in washing out the ear in these cases is very likely to be followed, first by middle ear suppuration, then rapidly by meningitis (as pointed out by Politzer years ago): the infection

spreading from the middle ear through the traumatic fissure of the meninges.

19. Don't forget in cases of impacted cerumen to determine if there is an existing dry perforation before using water. If in spite of a negative history or other evidence you find, after syringing the canal, the presence of a dry perforation, don't forget to tell the patient or the family that suppuration is liable to follow and thus avoid subsequent embarrassment.

20. Don't perform any operation upon the ear without previously determining the condition of the labyrinth and the intra-cranial structure. Remember that vertigo, nystagmus and equilibrium disturbances are a trio of symptoms met with in all forms of diffuse labyrinth affections, and

21. Don't forget that vertigo from internal ear complications is always rotational in character. In other words, the patient suffers either the sensation of subjective motion or turning or else he refers the sensations to external objects; *i. e.*, he feels that the room or objects about him are in motion.

22. Don't begin any operation upon the ear without being prepared to follow up the infection to its source and to all of its extensions, no matter where it leads you.

23. Don't use a posterior nasal or Belloque's tampon to stop a hemorrhage from the nasal cavity except in the most exceptional cases where other methods of tamponage have positively failed. Tamponage of the posterior nares after the Belloque method to be of benefit must necessarily remain in situ so long a time that violent infection of the middle ear through the Eustachian tube is very apt to follow. The writer saw two cases of middle ear infection with mastoiditis, one of which proved fatal, occur within a month of each other after the use of the posterior nasal tampon.

24. Don't forget that surgical ear conditions are far safer in the hands of the specialists than in the hands of the general surgeon who has not the necessary special knowledge of the subject.

TUBERCULOSIS OF THE KIDNEY.

BY

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Read before the Maryland Homœopathic Medical Society.

CONHEIM, in 1882, first demonstrated the hematogenous nature of renal tuberculosis; that the kidney is an eliminator of the tubercle bacilli and that its localization within it is the cause of the disease. Until Steinthal, in 1885, showed from autopsy records that in one-half of 24 cases the process began in the kidney, renal tuberculosis was generally considered as a sequel to disease of the testicle, the vas, the prostate or the bladder.

It is generally a *primary one-sided* affair, starting in the upper pole at the junction of the cortical and medullary portions.

The symptoms may be divided into three headings—those coming from the *kidney*, the *bladder* and from the *urine*.

In a marked case we may have all the symptoms present. In a beginning case we may have no symptoms present. The *subjective* symptoms coming from the *kidney* are those of an acute closure of the ureter, as pain, vomiting and suppression of urine. These symptoms come not so frequently in the later stages of the disease. Palpation will usually reveal a large kidney, but in the later stages this same kidney may be small and not palpable. We must always think of the other kidney. In many cases we get a cloudy urine, tb. bacilli coming from a tuberculous kidney which has contracted and so is not palpable, while on the other side is an enlarged kidney which is in reality a compensatory hypertrophy and due to its size may be diagnosed as the *discarded* kidney and taken out. To avoid such mistakes always get the urine from the separate kidneys and apply the tests which will be spoken of later.

Bladder Symptoms.—The patient often comes with a diagnosis of “catarrh of the bladder,” cloudy urine and painful micturition. This may or may not mean tuberculosis of the bladder. Often these symptoms are due to reflex symptoms from the ureter, which may be a periureteritis. Hence we can often find slow and painful urination with or without bladder trouble.

Urinary Symptoms.—In this condition we may have pyo-

hemato, phosphat and polyuria. In the beginning we get a polyuria at night—a symptom of importance. *Phosphaturia* is more frequent and pronounced in the beginning of the disease—whilst *pyuria* is slight in the beginning and increases as the disease advances.

One of the most important urinary symptoms suggesting a tuberculosis of the kidney is a history of urinating perfectly clear urine one day and the next day cloudy urine full of pus cells. This is due to chronic closures of the ureter during which process there are also open intervals. This is not like the acute closure of the ureter in the beginning of the disease accompanied with pain and vomiting.

Hematuria is seldom found in tuberculosis of the kidney. When it does occur it is very apt to be from one of two causes—a congestive bleeding from the kidney or a point of tubercular ulceration.

Diagnosis.—There are two forms or types of the disease:

The *light* or incipient and the *severe* or more advanced. The patient usually comes complaining of frequent and painful urination. I might say that every case of cystitis that is not gonorrheal, the result of instrumentation, trauma or stone must be looked upon with suspicion especially in the young. So examine the urine for tubercle bacilli and inject the sediment into a guinea pig. In ten days or a little longer you will have the characteristic changes in the glands of the animal if positive. (Kapsammer injects the hind leg after slight bruising of the inguinal glands of the animal.) Next determine the condition of the bladder by the use of the cystoscope. We know that the tubercular process may remain in one kidney for quite a long while so make a diagnosis as early as possible before the other kidney is at all affected. This must be done by the use of the cystoscope and catheterization of both ureters simultaneously. The injection of the guinea pig with the sediment is the surest and best test, because you may have a urine coming from a tuberculous kidney that much search with the microscope fails to show the tubercle bacilli and still the injection process make the diagnosis positive.

So after tubercle bacilli are known to exist in one or both kidneys the question of *treatment* presents itself.

Tuberculosis of the kidney is a surgical disease and nephrectomy is the “indicated remedy.”

But before this can be resorted to we must know the condi-

tion—the functioning capacity—of the *other* kidney. Before the modern methods of to-day were used to obtain this result the mortality ran from 28 to 60 per cent., but since Kümmell reported a series of 76 nephrectomies and 5 deaths, and still later 65 cases and only 2 deaths in which ureteral catheterization was done. Caspar's reports were very similar.

There are several methods used to estimate the functioning power of the kidneys. I shall only refer to cryoscopy, indigo-carmin and the phlorozin tests.

Cryoscopy, or the determination of the freezing point of the urine for estimating the amount of solids held in solution bears a direct relation to the solids or freezing point of the blood. When the freezing point of the urine is *high*, showing a small amount of solids in solution the blood is correspondingly *low*—in other words, carrying the products that the urine should have excreted—thus making an operation necessarily graver or out of the question.

The technique in cryoscopy is necessarily rather elaborate and lengthy, whilst the indigo-carmin and phlorozin are much easier and quicker done and gaining favor with urologists, especially the phlorozin test.

The indigo-carmin test is a valuable one, especially when making a cystoscopic examination the examiner has the opportunity of seeing the blue jet spurt from the ureteral openings. The time of its appearance after its injection means much concerning the functioning power of the kidney.

The lapse of time after the injection is also the valuable point in the *phlorozin* test, which was first introduced by Caspar and Richter in 1901 and elaborated and strongly advocated by Prof. Kapsammer, of Vienna, with whom I had the privilege of working in his clinic. His method of using the test is as follows: When 1 c.c. of fresh, warm, sterile one per cent. solution of phlorozin is injected the normal kidney will commence to secrete a urine containing sugar in from 10 to 15 minutes. In proportion as it is diseased the later will the glycosuria appear. Kapsammer has found that an organ from which sugar appears 30 minutes after injection, while it may be anatomically and functionally damaged is yet able to perform the duties of the whole organism. If the sugar appears 40 minutes after injection in the urine of the kidney that is to remain, extirpation is contraindicated. A great advantage of this method is that by it we can be quickly informed by examining the mixed urines of

both kidneys in the bladder. If sugar appears 10 to 15 minutes after injection in the bladder urine, at least one kidney is able to functionate properly. If, however, it appears later than 40 minutes nephrectomy is not to be considered.

Prof. Kapsammer states very positively that these conditions hold good in all cases except certain forms of parenchymatous nephritis where you would have marked albuminuria, with tubes and casts.

When both kidneys are tuberculous—any operation is contraindicated unless it be a simple nephrotomy to evacuate pus causing grave sepsis. Otherwise give the tuberculin treatment with 24 hours of fresh air in the day and good food with the hope of prolonging life.

When both kidneys are diseased the patient will likely live from two to five years.

I have a case now that says he was treated for "bladder trouble" about five years ago—was sent to Berkley Springs, where he was much improved after several months, so much so that he married and shortly after had a relapse—came here to this city and after careful examination was told both kidneys were tuberculous. Returning to the Springs was ineffectual. Two months ago he had two severe uræmic convulsions, but with the help of bell. followed by cu. as. 3x he has had no return.

This no doubt is another case where an early diagnosis and nephrectomy of the kidney in which the disease began would have resulted in a cure. He has never had the slightest cough and no history of tuberculosis in his family.

Concerning the prognosis Dr. Kapsammer said in a paper read in Vienna about a year ago that the mortality in the published cases was from 1 to 2 per cent. In 11 consecutive cases which he had operated there were no deaths. Ten are now absolutely well—one died from a cause not connected with the previous condition of the kidney in any way.

So, when tuberculosis of the kidney is diagnosed early, it is a curable disease.

HAHNEMANNIAN HOMŒOPATHY VERSUS PRESENT DAY METHODS.

BY

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I HAVE often wondered why so many of our good homœopaths have deviated from the paths of true homœopathy and taken up so many of the present day methods, but I believe this can be explained from the fact that we do not spend enough time with the works of the founder of this great cause. While he was not infallible and had many mistaken ideas, I believe there are many things in his teachings by which we would be well repaid for our study. While it would be impossible for us to converse with him, it is possible to pay much closer attention to his masterpiece, the *Organon*.

What would he think of the many mixtures and combination tablets and things of this sort, that are being used by so many of our present day homœopaths, and again let him go to the bedside with us and see the superficial way in which most of our patients are examined, I believe that he would disinherit us of the name homœopath. Let him refer to our libraries, and what does he find there? I will venture to say many more works on pathology and diagnosis than on *materia medica*. Why should this be? Do we not depend on this branch alone for our distinction as a separate school of medicine? I think this should be the main work to be found in our library. In my own limited library I have seven *materia medicas* and two repertories, not one of which would I part with.

Since this visit would be impossible, let us then consider the *Organon* and some of its teachings and possibly by this be brought back to the straight and narrow path. He first tells us in the chapter on Physics that any physician treating disease instead of symptoms, although he may assume the name homœopath, is nothing more than a generalizing allopath. How many of our men of to-day are treating disease instead of symptoms! How often have you been asked what remedy you give in a certain condition, or again some one will tell you of a certain drug that is absolutely specific for a certain disease. I believe they are well meaning enough, but the constant association with the men of other schools that do this kind of prescribing, has a tendency to draw us into the habit.

Hahnemann, speaking of the allopaths of that day, says it seemed that their sole object was to see what amount of medicine a person could stand without showing bad effects and also to incorporate as many drugs as possible in one prescription. How different from the allopath of to-day who is giving the single remedy in fully seventy-five per cent. of his cases and he has even encroached upon the higher potencies of homœopathy when he uses his serum and vaccination theories.

Hahnemann's discoveries, as you all know, were made while practicing along this line. He observed that cinchona produced on the healthy person symptoms similar to those of malaria. He further noticed the law of similars in the case of persons burning themselves; if they would hold that surface to the fire it would relieve the pain, and the same results were noticed in those with frost bites if they would bathe in ice water or snow. His path with this new discovery was not as smooth as it might have been had he followed out the old ideas, but his convictions were strong and he fought out the battle that to-day makes us a separate school of medicine.

Now, as to the *Organon* proper let us get to its depths and compare some of his ideas with those of to-day, and see which are the most practical. The first of interest is Section 84, in which he tells us how to take the case. For instance, he first allows the patient to tell his entire case without interruption, unless he should get off of the subject. He then elaborates on any one of the symptoms that he may think important. How different from our busy doctor of to-day. Life seems too short to allow of but a short examination, and besides the prescribing to him is a matter of guess work at best. He again tells us to write down in the patient's own words all the symptoms that he may give. No doubt nine out of ten doctors will hoot at that, and why? Most likely because the fees are too small to spend much time on any certain case, but here let me ask a question, Are we homœopaths for financial reasons only? If so, we had better go back to the old school where money is much easier made. I will tell you why you took up homœopathy; it appealed to you from its truly scientific side. To my mind it is one of the prettiest subjects there is. Then why should we desert it for every new idea that breaks on the horizon of the medical world? I like money as well as anyone, but if by hard work and close attention to any one case I can cure him of his ailment I will follow in the footsteps of the

father of homœopathy, even at the loss of some of this world's goods.

Section 153: The only way to get the true homœopathic remedy for any condition is by accurate comparison of the symptoms of the disease with those of the remedies. How then can the practitioner of to-day expect to compare the few symptoms of disease which he takes, to the great number of drug symptoms that are produced and get the accurate similimum?

Section 208: The patient's age, mode of living, and diet, his occupation, domestic circumstances, and even his social position are to be considered, in order to see if these things have been of a nature to augment the disease, or in what way the cure might be favored or impeded thereby, nor should he overlook the patient's state of mind and temperament. How many doctors stop to find out the kind of food the patient has been taking, or even go so far as to lay out a diet for them to follow during the course of a homœopathic treatment? This latter is very essential during the administration of the homœopathic remedy on account of its extreme delicacy. Do you inquire into his occupation or mode of living? There may be some thing here that will destroy an otherwise good cure. Last, but not least, how few of us ever go so far as to find out the mental traits and temperament of our patients? Yet Hahnemann tells us that these are the most important of all the symptoms of the body.

Section 257: A true physician will know how to avoid the habit of considering certain remedies as favorites. I suppose this is one of the greatest stumbling blocks that we have to contend with. How often when we first see a case does a certain remedy flash before our minds, and throughout the rest of the case if we are not careful we will be favoring this remedy. The only way to overcome this is not to allow ourselves to have any favorites. Another good method is by giving each remedy the same amount of study. I have often noticed after giving some little time to a certain drug I can see it indicated in almost every case I see and this is why I say equalization of study is the best.

Section 258: The physician should remember that of all remedies, that one, only deserves attention and preference which bears accurate similitude to the totality of the characteristic symptoms of the case.

How often are we tempted to give two or more remedies in

alternation when in doubt as to which is the most indicated, but let us stop and think. These remedies may be antagonistic to each other, and again if the theory of homœopathy be true, that the drug produces in the body an artificial disease to combat the physical disease, you will readily see that every remedy added will complicate the totality just that much more. But let us take for granted that we get a cure from these alternations, which did the work, and which would you use should another case of a similar nature come under your observation? You will not always remember the alternation you made and I am sure you will not be able to find it in any of our *materia medicas*, and unless luck is on your side you may fail to cure your case and consequently lose your patient.

Along this same line let me read another paragraph, namely: Section 272: In treatment of disease only one simple medicinal substance shall be used at a time; again in Section 274: It is useless to apply a multiplicity of means where simplicity will accomplish the same end.

As to the question of potencies we are all a little unsettled. Hahnemann himself was never settled about this one subject, for in the earlier part of his career he advocated the very low potencies, while later he changed to the very high potencies, and even went so far as to advocate the smelling of the remedies for their effect.

Section 283: Prescribe doses small enough to be just sufficient to overcome and extinguish the disease. I believe that diseases are potentized as well as remedies and this is where we often make our mistakes; we will change the remedy when we should only change the potency to correspond to that of the disease.

As to the new ideas that are developing every day, I believe that some of them are good and can be used to good advantage as long as we do not allow ourselves to be carried off by them, and thereby neglect our homœopathic theories. I believe that there are other things that can be used homœopathically besides drugs, for instance the X-ray, the electric current, the vibrator and many other things of this kind. An article in the February number of the *Journal of The American Institute of Homœopathy*, written by Dr. Colby, of Boston, gives a clear idea as to what these things may do to lead us away from the theories of homœopathy.

In closing, I would urge upon you to be more accurate in

taking your cases, give single remedies, and make the *materia medica* your constant companion. If you will do these things I believe you will get a great deal more satisfaction out of the practice of medicine.

ANESTHESIA.

BY

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(Read before the Chiron Club of Washington, D. C.)

ANESTHESIA is a subject, the importance of which is being duly recognized to such an extent that it has now become a special branch of medicine. The majority of hospitals now have their staff anesthetist as they have their staff surgeon.

We have all had our beginning, when as the youngest member of the house staff it was our duty to administer the anesthetic, which fell to our lot along with the laboratory work, taking of histories, etc.; and when we became a senior resident, we were then allowed to do the less responsible work of assisting, holding retractors and sponging. Any surgeon who has suffered the mental anxiety of performing an operation under the irregular narcosis of an inexperienced anesthetist, with the alternate fears of the expulsion of the intestines from the abdominal wound or the death of his patient, will appreciate how greatly the welfare of both the patient and himself is enhanced by the assistance of one who can relieve him entirely of the responsibility.

Of course the direct responsibility is the surgeon's and the anesthetist should be accountable to him; but the anesthetist holds the life of the patient in his hands, and the impatience of the surgeon should not be allowed to hurry the anesthesia, or push it beyond the limits of safety as judged by the anesthetist. He is the only one who is best informed of the depth of the intoxication and therefore should govern its degree. However, the anesthetist and surgeon must work in harmony, and the nature of the operation will, of course, govern the depth of the narcosis. Take, for instance, the degree of narcosis for a cervix or perineum operation should not be as complete as that required for an abdominal operation, and the anesthetist should

be able to govern the degree by being familiar with the amount of relaxation required for each particular operation.

The condition of the patient, after a thorough examination of the heart, lungs, and kidneys principally, will determine the narcotic of choice, for it is upon these organs that the toxic action makes itself manifest. Ether is the drug generally used, but in this climate and farther south, chloroform is being used very extensively.

The methods used in the administration of the anesthetic depend largely upon personal habit and preference. As a preliminary to ether or chloroform narcosis, ethyl chloride, ethyl bromide and nitrous oxide are sometimes used. If ether is selected as the anesthetic, to my mind the preliminary use of chloroform, unless contra indicated is an admirable way to put the patient under, thus avoiding the unpleasant sensations of choking, fighting for air, and consequent struggling. Chloroform inhibits the secretion of mucus, which ether excites, and if given with plenty of air and by the drop method, its dangers are greatly diminished. Then again a much quicker narcosis is realized.

In using ether, I believe the closed inhaler is a detriment; the patient constantly exhaling into it, secretions accumulating and from the limited amount of space in the cone the quantity of air that the patient gets is not sufficient. In preference I think the use of several thicknesses of sterilized gauze spread over the face, and a folded towel to protect the eyes, ether given by the drop method, a good, simple way. The patient getting plenty of air but not enough to cause vomiting, however.

The preliminary attention to the patient is most important. The restricted diet and purgation need be mentioned in passing. The psychological condition of the patient has a marked influence on the narcosis. The anesthetist should, if possible, have previously examined the patient and secured her confidence, and to relieve her of the dread of the ordeal through which she is about to undergo. The preliminary administration of some sedative is very valuable, as it quiets the patient, and the amount of anesthetic used is lessened. Morphine sulph. gr. 1-6 and atropine sulph. gr. 1-150 is used to advantage in some cases, but in others it cannot be tolerated, acting directly opposite to the effect desired, morphia making them more nervous and frightened without any sedative effect, and the uncomfortable sensation of a dry mouth. If this idiosyncrasy is

known, smaller doses act better. But in any case it does harm where lung complications are present. Some employ scopolamin gr. 1-100 and morph. sulph. gr. 1-6 one-half hour before operation. The employment of chloretone seems to act generally the best, given in doses of 5 grains every 15 minutes for 3 doses, beginning one hour before the operation. The patient then becomes less nervous, more easily anesthetized, the amount of narcotic used is less, and post narcotic nausea and vomiting are greatly decreased.

The general rule to remove all artificial teeth prior to the anesthetic is essential, except where complete upper and lower sets are worn. If removed the cheeks fall in and interfere with respiration, and in several instances I have had to replace them, the patient not being able to breathe properly when the lower jaw was held up and forward. If necessity demands it, they can be removed very quickly and easily.

Having taken all preparatory precautions, the patient should be warned against the irritation of the throat, so apt to occur with ether, and assured of its harmlessness, the gauze is then lightly applied, without any ether. The patient is then allowed to breathe through it several times until accustomed to it; and then instructed to breathe deep, regular and quietly, through the nose to relax herself and to keep her mind on something foreign to the operation, "so that her dreams may be pleasant." The ether should then be dropped slowly on the gauze, over the nose, and the frequency of the drops increased as she becomes more tolerant, but the ether should never be poured. In this way complete anesthesia can be induced in from five to fifteen minutes, with from one to two ounces of ether, and without the unpleasant phenomena of choking, coughing and struggling. If chloretone or morphia has been given, both the amount of narcotic and time required are greatly reduced.

In cases where it becomes necessary to narcotize a patient as quickly as possible, as in alcoholics and the extremely nervous, it can be accomplished by the preliminary use of chloroform or ethyl chloride.

The patient should be placed upon the operating table before the deeper reflexes are lost, and the anesthesia completed while the final cleansing of the operative site is being performed. During the operation the anesthetist should endeavor to keep the patient at the highest level of narcosis which the operation will allow, and to maintain that level

with the fewest variations possible and the least amount of narcotic. If during the anesthesia the pulse becomes rapid and maintains a high arterial tension, with secretion of mucus or shallow breathing, the situation can be altered with the addition of a few drops of chloroform, without replacing the mask for the gauze.

Of the accidents of anesthesia I shall say but little, for they can be done away with in a great measure by the strictest attention to his patient by the anesthetist. He should never divert his attention for a moment from the patient; he should remember that he is scarcely less important than the surgeon. His finger must not be removed from the pulse of the patient, especially if chloroform is being used.

That a narcotized patient should be allowed to swallow her tongue is a reflection on the skill or vigilance of the anesthetist; for that accident is impossible if he constantly attends to his duty. Yet we have all seen cases where teeth have been pulled to pry the mouth open, and then sometimes several lacerations and contusions of the tongue in grasping with the forceps. The severe conjunctivitis, and corneal ulcers which occur after anesthesia, are due to improper protection to the eyes, and the habit some anesthetists have of placing the finger on the most sensitive part of the body, the cornea. The best guide to complete anesthesia is the pupillary reaction and the practice of touching the cornea is not necessary for the consequences which follow do not warrant its use as a guide.

Bronchitis and pneumonia, if caused at all by the narcosis are due generally to either a chilling of the entire body surface by exposure or the administration of cold ether in such proportions that by its evaporation and consequent decrease in temperature, it chills the lungs directly. The prevention of such a condition is remedied by protection of the patient from draughts, and warm ether administered by the drop method. The condition of the air in the operating room also plays an important part, as to its purity and warmth. The humidity is also an important factor, to be remembered, for all general anesthetics inhaled as vapors, are not tolerated so well in humid weather.

In regard to nausea and vomiting following anesthesia, it is usually proportional to the amount of saliva saturated with ether which is swallowed, and in these cases washing of the

stomach gives marked relief. In ordinary cases, however, when ether is given as suggested; the nausea is reduced to a minimum, and especially when chloretone has been previously administered.

Post operative shock and collapse is a condition which is accounted for in a great many cases, by the too frequent use of strychnia, and the Trendelenburg position during operation. Long operations and the necessarily large amount of anesthetic claim their share.

The practical points which I wish to emphasize are enumerated in the following resumé:

First.—Narcosis is a serious condition and should be induced only by those who are familiar with it.

Second.—Harmony should exist between the surgeon and the anesthetist.

Third.—The preliminary use of chloroform to ether narcosis is an admirable expedient.

Fourth.—The simple drop method on gauze is a preferable form of administering ether or chloroform.

Fifth.—Chloretone is a preferable sedative to morphia.

Sixth.—The psychological state of the patient affects the narcosis.

Seventh.—False teeth need not always be removed.

Eighth.—Chloroform is given by the gauze method as well as ether, the employment of both, as conditions occur, is thereby made easy.

Ninth.—Mouth gag and tongue forceps are not necessary.

Tenth.—Accidents will be reduced to a minimum by careful and skillful anesthetists.

THE ETIOLOGY OF ECLAMPSIA.—In the *Zeitschrift für Geburtshilfe und Gynäkologie*, Bd. 63, H. 2, P. F. Ahlfeld classifies puerperal eclampsia as follows: (1) The genuine, typical eclampsia; (2) The eclamptic-uremic form; (3) Pseudo-eclampsia. The first form or true eclampsia is seen almost entirely in primiparæ, rarely in a second pregnancy and then only in repeated paroxysms. It is due to a toxin-stasis in the pregnant or recently confined woman, caused by a transitory, commonly brief, renal insufficiency. The eclamptic-uremic form is found in multiparæ, seldom, but now and then, in the primipara. Its cause is intoxication from a commonly chronic renal insufficiency preceding the gravidity. Pseudo-eclampsia has, strictly speaking, nothing to do with the puerperal state. Because of various organic diseases it appears in the pregnant, independent of any renal affection, but favored by the status puerpalis. It may be the result of a septic intoxication or merely reflex in origin; the type may be an epileptic or a hystero-epileptic convulsion, simulating eclampsia.

EDITORIAL

SOME PROBLEMS THAT CONFRONT MEDICAL SCHOOLS.

DURING the past five years the number of medical schools in the United States has diminished from 166 to 148, eighteen having closed their doors through merger or otherwise.

When we come to inquire into the reasons for this decrease in the number of institutions teaching medicine there are two which stand out pre-eminently, namely, the rapid advancement of the standard of medical education, and the greatly increased cost of furnishing the instruction that the present-day standard demands.

The advance in the standard of medical education may be traced to two factors. First, the enormous strides that have been made in general education during the past quarter of a century, the growth of high schools and colleges in all parts of our land, very naturally furnished both a reason and the rational basis for the elevation of entrance requirements on the part of medical schools. The second factor is the feeling on the part of the profession and of the laity that what is needed is not more doctors but better trained doctors.

The plan of raising the entrance requirements and of increasing the period of medical study has therefore been agreed upon as the most effective method of shutting out the undesirable and of making more efficient those who are prepared to enter and to complete their medical course. The movement toward raising the standard of medical education has as yet scarcely begun. There is every reason to believe that it will ultimately culminate in the medical schools requiring a bachelor's degree of all students who desire to become aspirants to the degree of Doctor of Medicine. Some of the more prominent schools make this a necessary preliminary requirement even now and by the end of this year about fifty medical colleges will require one or more years of college training for admission to the freshman class. Whatever may be the merits or demerits of this policy there can be no doubt but that it has

the almost unanimous support of the public and of the influential medical organizations in all parts of the United States and its general enforcement is merely a matter of time.

As a corollary to the progress in medical education comes the increased cost of furnishing such a training. Expensive laboratories must be equipped and maintained, and highly trained men must be employed to conduct them. A dispensary and hospital of such size and so located as to draw a large number of patients is another necessary adjunct to the modern medical school. This is impossible in a small city and in a large city can only be maintained at an enormous expense.

We are not calling attention to these things for the purpose of finding fault, because we believe that no man who is called upon to go out into the community and assume responsibility for the lives and happiness of multitudes of human beings can be too thoroughly or too carefully trained for his life work. Our sole purpose in mentioning them is to point out the difficulties that confront the modern medical school in carrying on its work. In fact, it must be recognized by all, that to meet the demands that can be reasonably made upon it, the modern medical college, whether homœopathic or otherwise, must have a source of income independent of the fees received from students. This means that it must either receive financial aid from the state or raise an endowment fund to add to its source of revenue.

THE HOMŒOPATHIC STATE MEDICAL SOCIETY.

WE are glad to note that the wide-awake president of the Homœopathic Medical Society of the State of Pennsylvania, Dr. D. P. Maddux, is not satisfied to "let things take their course" but has already begun a campaign to arouse interest in the next meeting of the Society. Every homœopath in the state should encourage Dr. Maddux in his good work and begin right now to hunt up new members and to urge those who are members to make a special effort to join them in going to Scranton in September.

There are many reasons why this session should be an enthusiastic and interesting one. The Harrisburg meeting was marked by a re-awakening of enthusiasm for homœopathy

and by a united sentiment in favor of upholding the dignity of our school and the rights of homœopathic practitioners against the legislative attacks of the dominant school. What was begun at Harrisburg should be completed at Scranton, and the success that attended the efforts of the Legislative Committee of the State Society in defeating the legislative enactment introduced by the old school for the purpose of placing in their hands the sole control of the power of granting licenses to practice medicine and surgery in Pennsylvania should arouse a spirit of just pride in the heart of every homœopathic practitioner and make him anxious to associate himself with his fellow-practitioners in carrying on this fight in the future. For while we live we must fight, whether as individuals or as a school of medicine, and though the old school lost more in the last legislative contest than ever before, it requires neither a prophet nor the son of a prophet to predict that they will begin the battle afresh at the next session of the Legislature.

Aside from its importance from the standpoint of organization, the meeting gives promise of being unusually interesting from a scientific standpoint. A number of homœopathic practitioners of wide reputation from neighboring states as well as from Pennsylvania, have promised to be present and to give us the benefit of their experience and knowledge.

It would seem that a great improvement might be made in the value of the discussions of the papers presented if the chairmen of the various sections would make special efforts to secure competent persons to start the discussions and have the writers of the papers furnish the one who is to discuss their paper with at least a synopsis of the matter he proposes to present, a week or two before the opening of the session. This is no more than courtesy to the member who consents to open the discussion, and is required by a very large number of progressive medical societies.

The social side of the State Society meetings is always a pleasing one and the cordial hospitality that has always been accorded the members of the Society at Scranton should certainly make us all anxious to be present. **DON'T FORGET THE DATE, SEPTEMBER 21, 22 AND 23.**

THE DOCTOR AS A VICARIOUS PHILANTHROPIST.—In a recent issue of the *British Medical Journal* appears an unusually interesting editorial under the above title. As the problem considered is one which also confronts

the American physician, the conclusions of our British contemporary will doubtless be of interest. After stating that "the position in which medical men are placed when called on to attend urgent cases of labor or street accidents, with the certainty that in most cases they will receive no remuneration, is fast becoming intolerable," the editorial says that two cases have recently occurred which forcibly emphasize this fact.

In the first case, a physician was severely criticized by the public press for not attending a street accident when sent for, notwithstanding the fact that he was not a police surgeon, that he had been refused payment by the police authorities in other cases to which they had called him and that he had notified them that he would not in the future respond to their summons. In spite of these facts, the newspapers made severe comments regarding his refusal to respond to the call.

In the second case, a physician was called late at night to go to a labor case and asked that his fee be guaranteed before he respond. The physician denies that he refused to go, but says that after some discussion the husband deliberately turned away. Another doctor was summoned and on his arrival found that twins had been born, but that the mother had died from heart failure through exhaustion. The coroner in his verdict on the case reminded the jury that the impression that a doctor is a public servant and is required to go whenever called is incorrect, as a doctor is entitled to payment for his services or to the assurance that he will be paid. The jury, in returning its verdict, stated that death was due to heart failure arising from exhaustion from want of proper attention and added a rider to its verdict that it was "unwise for doctors to raise the question of fees."

Commenting on the verdict, the editorial says: "What the jury probably meant but hardly liked to say after the coroner's remarks, was that doctors ought to go to cases whenever summoned without question, and trust to chance payment afterward." The editor then proceeds to state that if in a particular case the question was simply whether a doctor, knowing that refusal to attend a case would involve suffering or danger which he might prevent, yet refused to go on the sole ground that his fee was uncertain, he would fairly be deemed guilty of inhumanity, and that every member of the profession will agree that, in the words of the Poor Law Commission, "the physical condition of the patient should be the first consideration."

But this is only half the question. The primary responsibility for making proper provision for medical attendance in confinement cases rests on the patient or on her husband. If they fail in their duty, it then falls on the community as a whole. This principle is clearly acknowledged in the case of paupers, who are cared for not only along medical lines, but in every way at the expense of the State, even though their poverty be their own fault. This is carried to such an extent that the medical treatment given paupers is actually better than that given those members of the working classes who are just above the grade of paupers. The editor consequently concludes that the duty of providing proper medical attendance in cases of labor, accident, etc., falls on the individual or the State, and that if the individual does not make adequate provision for such service the State should do so. In the case cited above both the individual and the State had failed to do their duty and the burden of assuming this re-

sponsibility without any guarantee of proper compensation was thrust on the physician as a representative of the medical profession, which is thus made to carry the burden which should be borne by the whole of society instead of being placed on a part.

After commenting on the situation in England, in which the midwives act makes satisfactory provision for the care of women unable to pay for medical services, the editor asks, "In this state of things, what must medical men do? If they refuse to attend these cases without guarantee of a fee they are called brutal and inhumane. If they do attend, they are voluntarily taking on themselves the burden which the local government board acknowledges ought to be borne by the community. They are doing State work without State pay and, as experience shows, if they will do it, they may go on doing it indefinitely."

Regarding accident cases, in some of the larger cities in England definite arrangements are made for payment on a fixed scale of fees to medical men called by the police to attend cases of accident, but in by far the greater number of towns there is no provision at all. "The authorities simply evade their responsibility by trusting that the humanitarian feeling of medical men will compel them to do the work for nothing. It is impossible that this condition of affairs should continue. Humanity will always claim sacrifice and will always get it from the medical profession. It is freely admitted that a man's responsibilities for helping others increase with his ability to help, but it can never be conducive to the welfare of the community that any one section of the community should be systematically exploited for the rest. Sydney Smith says that philanthropy in practice generally meant that Jones thought that Smith should do something for the relief of people in distress and this view is generally held by the public in respect to medical practitioners. It is high time that even coroners and their juries should realize that however convenient it may be to be charitable at another man's expense, the doctor can not live if he is to be regarded as a vicarious philanthropist."

These principles are of the greatest importance. Obviously the duty of caring for the injured and suffering members of the community devolves either on the individual or on the community at large. If the individual does not provide or is not able to provide proper medical attendance, then it is plainly the duty of the community to furnish it for him. The obligation to furnish such relief rests on the physician the same as on any other individual member of the community, but it should be met by the doctor in the payment of exactly the same amount of taxes that is paid by every other citizen of the same degree of material prosperity and not by a special tax levied on him as a professional man, in the shape of unremunerated and gratuitous professional service. It is impossible to avoid the conclusion that the physician is every year becoming more and more a State health officer and that the community has cheerfully and unthinkingly allowed the medical profession to do the charitable work which by right should devolve on the community itself. The appeal is being made constantly to the humanitarian instincts of the individual physician and seldom, we are glad to say, without response, but this does not palliate the economic injustice perpetrated by the community in unloading its plain charitable duty on the medical profession, simply because it has heretofore tacitly permitted it.—*Jour. Amer. Med. Assn.*

GLEANINGS

PULMONARY TUBERCULOSIS IN CHILDREN.—Williams, Mary H. (*British Medical Journal*, February 13, 1909, p. 387.) Phthisis is one of the most common diseases of childhood, and, among those who die of it at the ages when it causes the highest mortality, the majority have contracted and suffered from the disease in childhood. This view is supported by death and morbidity statistics.

In the immense majority of cases tuberculosis is not contracted by inhalation, but by the ingestion of bacilli or bacilliferous products by way of the intestinal mucosa. The tendency of the disease in these cases is to cure.

Important early symptoms are night sweating, morning anorexia and fatigue. It is urged that the greatest care be taken to detect these cases early by the medical school inspectors and, when found, that the children be sent to open air schools.

RECENT ADVANCES MADE IN THE SCIENTIFIC STUDY OF FOOD STUFFS AND THEIR APPLICATION TO THE NUTRITION OF INFANTS.—Rotch, Thos. M., and Morse, John L. (*Boston Medical and Surgical Journal*, February 25, 1909, p. 243.)

The glycerides of the higher fatty acids predominate in cow's milk as compared to human milk, while the volatile fatty acids are in larger proportion in the latter. The milk of Holsteins contains a lower percentage of these glycerides than does that of Guernseys and Jerseys, and clinically is more easily digested. For purposes of nutrition the percentage of fat should not be lower than 1 and not higher than 4 per cent. However, no hard and fast rule can be formulated, for each child should be studied by itself. Butyric acid fermentation, which results from the breaking up of the glycerides of butyric acid, takes place more readily in Guernsey and Jersey milk than in Holstein. The emulsion of Holstein milk resembles more closely that of human milk. It is not only much finer, but also more stable and more easily reformed when broken up.

Dextrose is the only form of carbohydrate which is directly assimilable into the circulation. Certain peculiar forms of fermentation determine which carbohydrate shall be given. Where there is an excess of lactic acid, maltose should be given, and where an excess of butyric acid, lactose. Starch serves two functions in the food—it makes the casein precipitate finer and it has a nutritive value.

There is no proof that qualitatively the proteids of cow's milk differ from those of human milk. The authors give a table showing the combinations of soluble proteids (lactalbumin) and casein with fat percentages from 1 to 4 and sugar percentages from 4 to 7.

Casein can form combinations with alkalis and with acids. Citrate of soda, which acts like an alkali in the digestion of casein, may be used instead of an alkali. It also prevents the action of the rennet and results

in the formation of soft curds if added in strength of 4 per cent. The addition of an alkali favors the production of hydrochloric acid, and if sufficient be added, relieves the stomach of the digestion of proteids. Lime water or bicarbonate of soda may be used. Lactic acid bacilli favor the digestion of the proteid and limit saprophytic fermentation.—*Archives of Pediatrics*.

CONDITION OF THE HEART AND LUNGS AFTER ABDOMINAL OPERATIONS.—A. von Lichtenberg (*Wiener Med. Wochenschr.*) has investigated 100 cases to determine the condition of the heart and lungs after a variety of abdominal operations. His conclusions are as follows: 1. Post-operative pulmonary complications in an absolute sense are far more frequent than has been previously assumed on the ground of the existing statistics, since their presence may entirely escape observation in a large number of cases. Slight transient elevations of temperature during the first days after aseptic operations are usually due to such occult pulmonary complications. 2. The post-operative changes in the lungs, as discovered in the author's examinations, cannot be considered as post-operative pneumonia in the ordinary sense. They constitute rather a favorable soil for development of such complication, and in the absence of contributory factors, may recede in a few days without causing much mischief. 3. The great majority of pulmonary complications occur shortly after the operation, and can be determined by physical examination on the second, third or fourth day. 4. The method of anesthesia has no influence upon their frequency of occurrence. Cases of anesthesia pneumonia are very rare. 5. For the vast majority an embolic origin must be assumed; occasionally there are hypostatic forms. 6. Marked cardiac lesions appear to play a less important part in the etiology than comparatively slight changes in the vascular system and myocardium, which deserve to be more carefully observed from an etiological point of view. 7. Changes in the area of pulmonary resonance in the first few days after operation may be indicative of the presence of occult pulmonary complications. 8. The condition of the blood pressure in connection with other existing signs enables one to determine the state of the circulatory organs in cases subjected to operation and to improve their functions to proper medicinal treatment.

GALENIC FLASHES IN THE 20TH CENTURY—EMETICS AND CATHARTICS IN MALARIA.—A Doctor de Carvalho, of Para, Brazil, has come out, in plain 20th century, to revive the humour-drawers of Galen. Fortunately it is in semi-savage regions where the traditional means have continued to be used as remedies of value, for Drs. Lemanski and Schoull, of Tunis, Africa, have indorsed the views of the out-of-date Carvalho, claiming that in numerous cases of malaria observed and treated by them, *Ipecac* and *Calomel* always proved beneficial, especially the latter, on account of the congestive state of the liver. According to these physicians, the administration of these remedies favours highly the action of *Quinine*; and they assert that this combination is easily understood, if we consider that *acute malaria* is almost always fatally attended by gastro-intestinal disorders.

Moreover, they intimate that in urgent cases, especially in *pernicious*

paroxysms we can resort to the simultaneous use of these drugs by hypodermic injection with advantageous results.—*Journal de Praticiens*.

P. W. SHEDD, M. D.

EMOTIONAL DYSPEPSIA.—It is believed that a large number of cases of indigestion are functional manifestations of nervous origin. In support of this contention Cannon reviews the literature on the effects of the emotions upon the functions of the alimentary tract. Various writers have shown, by means of experimental fistulæ in animals and after certain operations in man, that both motor and secretory activity of the digestive tract is largely dependent upon emotions and feelings. In the study of animals with œsophageal fistulæ it has been found that the eating of food caused a copious secretion of gastric juice, even though the food did not enter the stomach, but was passed out through the fistula. In a girl with gastric and œsophageal fistula, Bickel observed that gastric secretion continued long after having been induced by eating; none of the food having passed into the stomach. Unpleasant emotions and feelings, such as anger, fear, worry, anxiety, etc., have been shown to prevent the secretion of gastric juice after ingestion of food, or to cause cessation of secretion after its establishment. In a series of experiments upon animals the author found, by means of the X-ray, that the emotional excitability caused by the handling and struggling incident to securing the animal prevented or stopped gastric and intestinal peristalsis. The author mentions the case of a woman, the examination of whose stomach contents, removed one hour after a test breakfast, revealed the presence of the undigested breakfast and of much of the supper of the previous evening, together with the absence of acid.

It was afterwards found that the patient's husband, by becoming extremely intoxicated, had caused her considerable anxiety during the previous night. The following morning on repeating the analysis of a test breakfast, the findings were normal. Not only may "indigestion" be caused by painful mental states, but it may be prolonged by the same factors. The writer mentions the admonitions of Kast relative to the precautions which are necessary before the passage of a stomach tube in order that the analytic results may truly indicate the normal conditions of the patient's digestive functions. The fact that a stomach tube is to be passed should not be known by the patient until this operation is about to be performed. This precaution is necessary so that disturbances of gastric secretion may not be caused by emotional excitement due to excusable apprehension on the part of the patient. W. B. Cannon. *The Influence of Emotional States on the Functions of the Alimentary Canal.*—*Amer. Jour. of the Med. Sciences*, April, 1909.

CHARLES D. FOX, M. D.

DISLOCATIONS OF CERVICAL VERTEBRÆ.—Because of their greater mobility, weaker tendinous support, and less extensive articular protection, the cervical vertebræ are the vertebræ which are the most frequently dislocated. The articular processes are not necessarily fractured as a result of dislocations in this region. The most frequent cause is hyperflexion of the neck. Anterior dislocation may be either unilateral or bilateral; the

articular process or processes ride over the corresponding ones of the subjacent vertebra and are displaced into the intervertebral notch. In bilateral anterior dislocation the body of the dislocated vertebra is displaced forward a distance equal to about one-half of its antero-posterior diameter. Unilateral anterior dislocations are differentiated by the amount of displacement being equivalent to about only one-quarter of the same diameter. This diagnostic sign is considered by the author to be pathognomonic; providing the lesion is not a fracture. The exact nature of traumatic lesions of the cervical vertebræ can be positively diagnosed only with the assistance of the X-ray.

The writer reports a case of anterior unilateral dislocation of the fifth cervical vertebra. No evidence of displacement could be palpated, but the X-ray showed forward displacement of the body amounting to about one quarter of its antero-posterior diameter and being due to visible forward dislocation of the left articular process. In addition to pain, tenderness, and rigidity of the neck the positive findings were: Partial anæsthesia of both hands; incomplete paralysis of all the fingers and of the bladder; increased reflexes of all four extremities, and the presence of ankle clonus, and the Babinski reflex. Attempts to reduce the dislocation having failed a plaster cast was applied. The symptoms thereupon improved and after the seventeenth day catheterization was no longer necessary. The cast was removed after five weeks and the patient returned to his work two weeks later. January 27, 1909, one year after the receipt of the injury, the abnormal manifestations were: Paræsthesia and limitation of flexion and extension of the last two fingers of the left hand; weakness of the vesical sphincter; sense of constriction in the imbilical region; and sexual impotence. Otherwise the patient was strong, felt well, and was doing heavy work. The persistence of the slight motor disability in the last two fingers of the left hand is thought by the author to be due to injury of the left sixth cervical nerve root caused by the displacement into the intervertebral notch of the left articular process of the fifth cervical vertebra.—James P. Warbasse, *American Jour. of Surgery*, March, 1909.

CHARLES D. FOX, M. D.

INTRACRANIAL HEMORRHAGE IN THE NEWBORN.—As from four to six large veins enter the longitudinal sinus from beneath the parietal bone, and as this entrance is effected more particularly in the vicinity of the coronal and lambdoidal sutures, these vessels are exposed to injury by the overlapping of the cranial bones which occurs during birth. The author lays great stress upon asphyxia as an additional cause of these hæmorrhages. The infant's partially membranous skull being distensible, large hæmorrhages can take place without causing the grave symptoms or fatal termination which would probably ensue in an adult. The writer believes that a large number of deaths in early infancy which are supposed to be due to inanition are, in reality, caused by intracranial hæmorrhages. Infratentorial hæmorrhages are characterized by cyanosis, irregular and convulsive respiration, general convulsions, and death, usually on the second or third day. Supratentorial hæmorrhages are generally unilateral and, besides causing symptoms of compression, may give origin to specific localizing signs. Bulging of the anterior fontanelle associated with the pres-

ence of blood cells in the cerebro-spinal fluid is considered pathognomonic.

Cushing's operative results are cited: Four cases with two recoveries in 1905, and reports in 1908, of nine cases with four recoveries.—James R. Torbert, *Boston Med. and Surg. Jour.*, April 22, 1909.

CHARLES D. FOX, M. D.

HYSTERICAL BLINDNESS.—Theodore Diller says that hysteric amaurosis may be of gradual or sudden onset and that it may be either unilateral or bilateral. Usually other evidences of hysteria may be found; though amaurosis has occurred apparently as the sole manifestation of the psychosis, ptosis, nystagmus, strabismus and conjugate deviation have been associated with the visual defect.

The diagnosis of hysteric amaurosis is almost positively indicated when blindness occurs suddenly and without impairment of the pupillary reflexes, providing it cannot otherwise be accounted for by the presence of inflammatory changes or demonstrable disease of the fundi. The condition may last from a few hours to several years, but normal vision returned in all recorded cases.

The author reports the case of a man, aet. 49, who on January 1, 1907, suddenly and in the absence of any emotional disturbances that could afterwards he elicited, developed bilateral amaurosis to the extent that only light perception remained. The patient's temperament was hysterical in nature and on one occasion, several years before the onset of the visual disturbance, he attempted to cut his throat, but succeeded in cutting only the skin. Under treatment the blindness gradually improved, so that at the end of two months, he was able to read the headlines of a newspaper. No further improvement took place during the next fifteen months. A six weeks' course of treatment by an irregular practitioner resulted in considerable improvement which persisted for a while and then vision began gradually to fail again. Paralysis and numbness of the right forearm and hand were found when the patient awakened one morning in June, 1908. Almost complete recovery of the paralysis gradually occurred, but sensation in the hand improved only slightly. Upon being examined, October 17, 1908, his visual acuity was found to be about 20-40 in each eye, in spite of the fact that his actions, attitude, and gait were that of a totally blind man. The pain sense was considerably reduced over the entire body and almost completely lost over the right forearms and hand. The recognition, by means of the muscle sense, of the positions in which his fingers were placed was lost. When his eyes were closed and subjects were placed in his right hand, he was unable to name them. Enormous concentric contractions of the visual fields were demonstrated. Ophthalmoscopic examination revealed no abnormalities. Decided improvement in his ability to use his hand, together with the recovery of conscious vision sufficient to enable him to go about alone followed the use of suggestive treatment and enforced exercise but, the author remarks, he never seemed very anxious to become cured.

Two other cases are reported. One, a man, was amblyopic for two months and in the second case, a woman, the condition persisted for several months. Both of these patients were major hysterics. The man having had alternating monoplegia followed by hemiplegia, while the woman

had suffered with various manifestations of hysteria; including double hemiplegia that had confined her to bed for fourteen months.—*Jour. of the A. M. A.*, April 24, 1909.

CHARLES D. FOX, M. D.

THE BLINDNESS OF HYSTERIA.—H. Gradle's first case "had had a severe shock to her feelings," accompanied by the onset of absolute amaurosis. The following day no objective reason having been found which would account for the condition and the prognosis being favorable because of her great desire to be cured, suggestion and a suggestive form of electrical treatment permanently restored, in a few minutes, her normal vision. The writer cites Kron to the effect that up to 1902 only 26 cases of bilateral hysteric amaurosis and 23 of the unilateral variety had been reported. He remarks that the unilateral form is not usually recorded and that it is probably not uncommon.

His second patient, "a vigorous young man of 20 years," had immediately become totally blind in the right eye, following traumatism, six weeks before, to the right ocular region, with the exception a small supraorbital scar objective examination was negative. However, by means of prisms and other tests, subconscious perception of visual impressions with the right eye was proved. No doubt was entertained as to the psychic nature of the blindness and there was not any incentive for simulation. Various suggestive forms of treatment were applied without any beneficial results. The patient did not return but, in the following two weeks, two of the writer's colleagues found the same condition. In commenting upon this case the author very pertinently writes "The distinction between hysteric—or let us say psychic—blindness and wilful simulation cannot be based on objective findings. They would be the same in both cases. We must base our judgment on a psychologic analysis of the patient's mind and object." He comments also upon the more frequent occurrence of cases of moderate psychic amblyopia, as compared with amaurosis, and the fact that these cases are not conscious of their visual impairment. This he explains by the following statement: "Like some of the other stigmata of hysteria they are either brought out or at least accentuated by the examination."

Diminution of visual acuity is often made the subject of complaint by patients, who do not otherwise present manifestations of hysteria. The absence, in these cases, of signs of any other cause but the symptoms, together with the presence of emotional instability is indicative of the psychic origin of the condition. The author's experience with cases of hysteria has been that immediate cure could be obtained only when the patient was subjected to treatment soon after the onset of the manifestations and that response to treatment was doubtful if the conditions had persisted for weeks. In all he reports seven cases.—*Jour. of the A. M. A.*

CHARLES D. FOX, M. D.

REMARKS ON TIC AND CHOREA.—The movements of convulsive tic, or habit spasm, are subject to temporary control and are often unconscious to the same extent as the unconscious swearing of the habitually profane man. The same muscles are always involved and the movements are

co-ordinate and purposeful; abnormality and grotesqueness being apparent only because of absence of ends for which the movements are adapted. The extension of tic occurs by means of involvement of adjacent and functionally related muscle groups, or a new tic may appear in another part of the body. Habit spasms do not disable because the necessity for normal activity of the affected muscles inhibits the condition. Following the termination of this normal activity the tiqueur indulges in a spree of spasms. Gratification of the underlying impulsive idea results in a sense of gratification where its volitional inhibition is distressful to the patient. Other movements apparently adapted to an obvious end are often added to the tic in order to disguise it; such as a voluntary cough added to a tic of pharation. Generalized and violent tics are not exhausting. The condition is believed to be the result of sensory irritation in most cases, but it arises, at times, through psychic contagion. Habit spasms are purely psychic in character, the result of obsessions, fixed, or imperative ideas, and require for their development a neuropathic foundation.

In chorea the movements are involuntary, inco-ordinate or purposeless, varied and not amenable to control by the patient. Extension occurs regardless of anatomic or physiologic relations. Voluntary activity is interfered with and the movements, when general, are profoundly exhausting.

Spasmodic torticollis, called mental torticollis by Brissand, is classified among the tics by the author. His reasons for doing so are as follows: The patient, always a neuropath, presents a spasm of sensory origin which is always aggravated by self-consciousness or other emotional perturbation and relieved, or caused to disappear temporarily, by distraction of the patient's attention from the causative obsession. The spasm can be subdued at the expense of mental distress, and indulgence is attended by a feeling of gratification. The patient invariably has some gesture or point of psychic restraint. The performance of this gesture or pressure upon the point or zone causes disappearance of the torticollis.

The treatment of tiqueurs comprises the adaption of measures calculated to improve the general health, associated with psychic re-education.—Hugh T. Patrick, *Jour. of the A. M. A.*, May 1, 1909.

CHARLES D. FOX, M. D.

PHOSPHOROUS COMPOUNDS AS BRAIN FOODS.—The author's percentage tables show that the brain, as compared with other tissues of the body, does not contain an unusual amount of phosphorous, but that the proportion of phosphorous in the form of lecithin is much higher in the brain. Comparative analysis of normal and diseased brain tissues show that the lecithin and total phosphorous content is not reduced to any extent in brain tissue from cases of paresis and dementia præcox. The phosphorous output is, to a considerable degree, disproportionately greater than its attempted medicinal compensation by means of the usual doses of phosphorous compounds. From these premises the author concludes that in conditions of exhaustion the brain does not require any additional supply of phosphorous, because in these states it has not been proven that there is a phosphorous deficit. Also that certain foods which are rich in phosphorous are quite sufficient to supply the normal necessity for this ele-

ment and, indeed, the amount of phosphorous in such foods is far greater than can be medicinally supplied. Further, that the medicinal use of phosphorous compounds is irrational, because of the insufficient amount that can be administered as compared with the daily output and because such treatment has not been shown to have any effect upon the growth of the brain.—W. Koch, *Jour. of the A. M. A.*, May 1, 1909.

CHARLES D. FOX, M. D.

PSYCHOTHERAPY.—In chapter VI of "The Unconscious," Morton Prince very lucidly expounds at length the mechanism by means of which therapeutic post-hypnotic suggestions, even though these are forgotten by the patient, may produce beneficial consequences. Dependent upon the patients and the character of the suggestions three modes of action are described. The first is through the production of co-conscious ideas, "A second method by which a dormant hypnotic complex may influence the personal consciousness is through the persistence of the emotions created in hypnosis." A familiar example of this, one which is drawn from the daily life of the normal individual, is the exhilaration and sense of well being which persists, after an exciting game of ball, and which is due to the stimulating emotions that were aroused during the course of the game. Another well known analogue is the persistence, after waking, of the emotional effects of a forgotten dream. One of the author's patients experienced depression, headache, nausea, and fatigue after having nightmares which were not remembered in the waking state. These effects were severe enough to confine her to bed for several days. By means of hypnosis these symptoms were frequently traced to some painful dream and the syndrome was easily removed by suggestion. In the Beauchamp case of dissociation of the personality quite frequently the author observed the community of emotional consequences even though the memory complexes of several of the personalities were dissociated from one another. The third and the usual means by which the waking personality is influenced by submerged memory complexes that were formed during hypnosis is through the generation of fixed ideas which persist, after waking, as organized unconscious complexes. As a result of the stimulation of associated ideas these unconscious fixed ideas are raised above the level of consciousness thereby becoming synthesized with the conscious personality without the latter being aware of their true source.

The writer then proceeds to discuss the different states that may occur during the performance of an act that is carried out as the result of a suggestion given experimentally during a former hypnotic state. The amount of retraction of the field of consciousness or of deviation from the individual's usual state that occurs during fulfillment of post-hypnotic suggestions is dependent upon the personal and environmental incongruity of the suggested acts. He shows that the beneficial influence of the ordinary post-hypnotic therapeutic suggestions does not necessitate any dissociation or abnormality of the patient's usual state of consciousness, because suggestions of this nature are compatible with and, in fact are, provocative of the patient's personality when in a state of health.—*Journal of Abnormal Psychology*, Vol. IV, No. 1.

CHARLES D. FOX, M. D.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY A. LEIGHT MONROE,

Miami, Florida.

REPORT OF 800 DERMATOLOGICAL CASES TREATED WITH X-RAY AND HIGH-FREQUENCY CURRENTS AT THE MOUNT SINAI HOSPITAL.—(Dr. Lustgarten's Clinic.) Dr. Samuel Stern (Transactions of the Sixth International Dermatological Congress). Epithelioma: The X-ray should not be employed as a routine measure in these cases, for much depends upon the proper choice of cases. As a general rule it might be said that the lesions best adapted to radiotherapy are those which are situated on the surface of the epidermis. Deeper-seated, nodular epitheliomas are best treated by other methods. Small nodular lesions situated on the surface of the skin can often be readily destroyed by a few applications of the high-frequency spark (fulguration). In the large lesions, with indurated borders, the edges may first be destroyed by the high-frequency spark and then treated by the X-ray. Not infrequently an ulcer will improve up to a certain point under X-radiation, and then come to a standstill, when a few applications of the high-frequency spark will bring about a cure. Eighty-five cases of superficial epitheliomata were treated with these methods. Out of these 45 were clinically cured; one was referred for other treatment; some deserted before the treatment could be effective, and others were lost track of.

Carcinoma: The results in carcinoma, although encouraging at the beginning, were always disappointing in the end. The author has never seen a case of internal carcinoma cured in this manner.

Sarcoma: The results are somewhat more encouraging in the various types of sarcomata. Occasionally, in fact, one may obtain a really startling effect.

Acne vulgaris: One hundred and twenty cases were treated with gratifying results. It is preferable to first puncture and evacuate the pustules and then to apply the X-ray. The number of exposures required is usually 12, and sometimes it is advisable to produce a mild reaction.

Rosacea: Fifteen cases were treated with very poor results. Other methods are preferable.

Psoriasis: The value of the X-ray in this disease has been well established. Early lesions respond quicker than the old indurated patches. Lesions on the face and scalp do not yield as readily as when situated on the trunk or limbs. The permanency of the relief does not appear greater than when other methods are employed, although when a dermatitis has

been produced the disease does not seem to return so quickly. Forty-eight cases were treated.

Eczema: One hundred and twenty-five cases of this affection were treated with very encouraging results. Eczemas of all varieties yield more or less readily to the treatment. The moist, weeping variety generally requires less treatment than the dry, scaly patches. Not infrequently cases that have persisted for years and which have resisted every other form of treatment will promptly respond to X-radiation.

Lichen chronicus, lichen planus and lichenoid eczema: In these cases the subjective symptoms usually disappear very promptly, but as a rule they are very stubborn as to final results. Out of 45 cases treated the large majority recovered.

Lupus erythematosus: The best method of treatment appears to be the high-frequency caustic spark. The treatment is applied to a small area at each sitting. Forty cases were treated with satisfactory immediate results, but unfortunately the ultimate effect is not so favorable.

Lupus vulgaris: Only six cases were treated, three of which were cured, while the others showed improvement. The lesions situated on the mucous membranes should be treated with the X-ray, while those in the skin will respond to the high-frequency spark.

Alopecia: In premature alopecia, if it has not progressed too far and if it is due to an insufficient blood supply, much can be accomplished by the frequent application of the high-frequency spark by means of the glass vacuum electrode, with the production of hyperæmia. The same may be said of alopecia areata. In all, 35 cases of alopecia were treated in this manner.

Verruæ of different types, nævi and molluscum contagiosum can be destroyed with the high-frequency caustic spark with very little scarring. In bad cases of *nævus pigmentosus pilosus* good results may sometimes be accomplished by the use of the X-ray with the production of a second-degree dermatitis.

Keloid: The X-ray has a very decided action on scar tissue. Fifteen cases were treated. Although a few treatments will usually produce a flattening of the tissue, it is necessary, as a rule, to push the treatment to the point of reaction.

Folliculitis decalvans: Four cases were treated with the X-ray with good results.

Pruritis: Twenty-eight cases, due to various causes, were treated. Both the X-ray and the high-frequency sparks produce pleasing results.

Mycosis fungoides: This is one disease that could not be controlled before the X-ray era. Five cases were treated and all were clinically cured, but the disease relapsed very quickly. The patients can, however, be kept in a condition of good health, free from all the annoying subjective symptoms, for an indefinite period if occasional treatments are given.

Rhinoscleroma: Probably the most gratifying results in the field of radiotherapy are accomplished in this, up to a short time ago regarded as an incurable ailment. Three cases were treated with prompt and apparently permanent results.

Cycosis: One hundred and five cases were treated, with a record of 100 per cent. cures. The X-ray is applied until epilation occurs. The re-

sults are sometimes marvelous. Cases involving the entire beard and persisting for over five years have been cured in less than six weeks. The same method of treatment was used with success in favus and ringworm of the scalp. Hypertrichosis may also be treated in this manner, but it is a dangerous procedure, inasmuch as atrophy, telangiectasis, scarring, etc., may result.

Hyperidrosis may improve under prolonged X-ray treatment, and improvement was noticed in one case of xanthoma diabeticum.

EUCALYPTUS, 1X-2X.—*Acute Nephritis Complicating Influenza.*—A remedy peculiarly efficacious in this not uncommon, though little recognized and much neglected complicating condition, in recent epidemics of influenza.

These attacks of influenza are often ushered in with a chill. When the renal complication appears later in the course of the disease there are, in many cases, frequent recurrences of chilliness often alternating with a feeling of heat.

In some of these cases there is a renal irritation equivalent to a mild inflammation. Degenerative changes being evidenced by the presence of albumen, casts, renal epithelium and blood in the urine, which at first is increased and later partially suppressed, of high color with turbidity. The temperature is generally not excessive in these mild cases, and if high is of brief duration, the entire condition yielding promptly to treatment.

In these conditions eucalyptus produces positive results and is a remedy to tie to. Whether it acts as an opsonin—preparing the bacilli for phagocytic digestion—or as a direct antitoxin—antidoting the toxins of the disease—matters little so long as the results are so definite and satisfactory. It mildly stimulates cardiac action but does not overstrain the myocardium so characteristically weakened by the toxins of the infection. This increased cardiac action together with its selective action on the renal cells, help to overcome the renal insufficiency and restore the secretory function, thereby increasing the quantity of urine as also the output of urea. It increases skin action and controls any tendency to hematuria.

I wish here to emphasize the value of eucalyptus as a remedy for hemorrhages not only when given internally, but as a styptic locally applied. The tincture is used for local application.

It has further action of prime value in suppurative inflammations of the kidneys. Do not forget it when an infection has made its way to these organs and purulent inflammation results.

When puzzled by persistent temperature in influenza look to the kidneys and remember eucalyptus.

PLANTAGO MAJOR AND STAPHISAGRIA.—*Pyorrhea Alveolaris.*—This affection, the bete noir of the dental surgeon, with its insidious onset, its tendency to chronicity and far-reaching harmful effects, though so generally neglected, will now and again intrude its unwelcome presence upon us and press for remedial attention. Here two remedies offer us truly valuable aid—in many cases they are veritable specifics. First and foremost is Plantago Major, verifying a legendary reputation as a remedy for septic or toxic results, and ably seconded by Staphisagria demonstrating its one-time repute as curative for dyscrasias—possibly of a leucic nature.

Given in rotation or alternately—they will most admirably overcome most cases of this generally unyielding and medically unresponsive disease entity. The inflamed, pus laden and germ breeding gingival areas heal promptly and the teeth not already dead regain their natural firmness. Their effect is specially marked in overcoming that most common general symptom of alveolar pyorrhœa—secondary anemia. It will clear up the neurasthenic symptoms so often present and help to cure the sometimes attendant chronic rheumatism.

In one case treated, not only was the pyorrhœa relieved and the anemia overcome, but the patient was cured of a predisposition to frequently recurring attacks of erysipelas. The two diseases possibly being diverse manifestations of a streptococcus infection.

The remedies were used, plantago tincture 1x and staphisagria 2x-3x dilutions.

BROMIUM, 1x-2x.—*Whooping Cough*.—It appears that few if any physicians recognize the extraordinary value of this remedy in the treatment of this intractable affection. This fact appears the more singular as its pathogenesis manifestly indicates its use in spasmodic affections of the bronchial portion of the respiratory tract. This is probably due, in a large measure, to the worthlessness of the remedy in stock because of its instability and tendency to rapid deterioration. The reliability of the drug must be insisted upon absolutely if its use is not to prove disappointing. Have it fresh and properly prepared and in the lower dilutions. The 1x and 2x being found most effective by me.

In some cases the beneficent effect is promptly apparent. More often there can be observed no appreciable effect of the remedy until it has been taken persistently for ten days or two weeks, then there results so complete and sudden an amelioration of the disease as to be, in some cases, almost startling—so much so that you will at times doubt your diagnosis of the condition. It is then that the paroxysms of coughing completely disappear or become infrequent and less spasmodic with a tendency to disappear within a very short period of time. With the continued administration of the remedy at less frequent intervals, the few tardy symptoms clear away and the little sufferer remains well.

The indiscriminate use of the remedy necessarily means some failures, but the death of characteristic indications or symptoms in the early stages of the disease has led me to an almost routine use of the remedy as soon as I am fairly sure of my diagnosis.

The only special indications that can be given you are, the aggravation late in the day and early part of the night, and also from the warm air of a poorly ventilated room.

In association with bromine, belladonna and ipecac are valuable intercurrents; belladonna for dry cough with the appearance of fever, and ipecac where there are excessive quantities of mucus with a tendency to vomit,—both conditions are from bronchial inflammation resulting from taking cold.

An effective way to administer the remedy is to add 2 to 3 drams of the 1x and 2x dilutions to 6 ounces of simple syrup—given a teaspoonful from one to two hours.—*The Clinique*.

NATRUM MUR.—Natrium mur. is a great promoter of tissue-change, increasing the excretion of urea, hence its great value in chronic scrofulous, gouty and rheumatic disorders.

It has a special action on the blood (anti-scorbutic), lymphatics, digestive organs, liver, and spleen, and will cure certain forms of malarial fever, especially when complicated by the harmful effects of large doses of quinine. It is the chief remedy (in conjunction with Calc. phos.) for anæmia and chlorosis, as it has been found that iron is present in the blood-albumen of most anæmic persons in quite sufficient quantity; but it is faulty action of the NaCl, whereby cell-multiplication is arrested, and of the Calc. phos., whereby the young cells cannot be "organized" and so prepared for the process of "ferruginising" in the spleen, that is the true cause of anæmia and chlorosis, so that the usual method of "drugging" with so-called "iron tonics" is not only useless and even harmful, but actually leads to the very thing which it is given to correct, viz., an actual deficiency of iron in the blood due to the irritation of constantly repeated doses of crude iron preparations. The pathogenesis and symptomatology of Natr. mur. is so vast that only a few of its possibilities can be shown in a sketch like this. Amongst the chief are: Sunstroke (I have cured it several times by means of Natr. mur. 6x), this disease being due to a sudden abstraction of water from the tissues at the nape of the neck; therefore the worst thing to do is to give spirits of any kind to a person so afflicted, which kind "Samaritans" usually do on such occasions!

Should Natr. mur. 6x not be at hand, the next best thing would be to administer a little of a solution made by stirring a pinch of salt well up in a tumblerful of water, or, better still, by shaking it up in a clean bottle, such as a large beer or whiskey bottle, half full of water, which would amount to about the 4x dilution of Natr. mur. In constipation Natr. mur. is a sheet anchor.

Next in delirium tremens and some forms of epilepsy when frothing at the mouth occurs, as it did in the case of a man who suddenly fell unconscious on the pavement one day when I happened to be near. Fortunately I had some Natr. mur. 30 in my pocket in the form of soft tablets, one of which I crushed up and rubbed into his gums, the teeth being set too tight to get at his tongue. In less than five minutes he opened his eyes, sat up, and after a little pulling together walked off as if nothing had happened.

Natr. mur. is specific in many cases of hemi-crania, also in muscular asthenopia, and ciliary neuralgia—in fact, in all forms of neuralgia where there are "watery" symptoms, such as lachrymation, salivation, &c. In cardiac hypertrophy and in Grave's disease, or exophthalmic goitre, it is also specific; a bad case of which I cured about two years ago in the person of a Colonial merchant who came to England in despair, none of his friends at the Cape ever expecting to see him again. After being under various eminent (allopathic) specialists he was advised to come to me, and in six months' time I sent him back cured by means of Natr. mur. 200 and nothing else but a little Kali phos. 6x latterly in alternation. He is still a living wonder to his friends at home and in the Colony, as he not only had the excessively protruding eyeballs, but also a terrific palpi-

tation of the heart and nervous exhaustion. Again, in many forms of Bright's disease Natr. mur. is invaluable (with Calc. phos. or Kali sulph), and in most cases of catarrhal influenza Natr. mur. will break up the whole thing aided by Ferr. phos. for the feverishness and Kali phos. for the nervous exhaustion. Natr. mur. is also a great worm remedy, chiefly for round worms, and it will immediately relieve the painful effects and swelling of insect and viper stings, as I have several times proved, using the 6x trituration. When staying with a country friend whose dog was bitten by a viper I advised the immediate application of Natr. mur. 6x in solution on lint to the face (which was so swollen as to appear ludicrous), and in about an hour or so he was quite happy and his features recognizable! Thus it is a great remedy in some forms of dropsical effusion, and in the confluent form of small-pox. In skin diseases Natr. mur. can cure all such as are characterized by watery blisters or vesicles and thin, whitish scales or scabs, as in eczemas, also in the chafing of skin in children.

It is specific in pemphigus and herpes zoster unless Natr. sulph. are indicated.

Some keynote of Natr. mur. besides "watery" symptoms are: Dry skin, hang-nails, periodicity, aggravation at the seaside, and in very hot or cold weather.

The backache is relieved by lying on a hard pillow. The facial and mental characteristics are: Livid, œdematous face with sallow, greasy skin, which is very sensitive. Moist, tearful eyes, pimply eruptions and eczema, principally at margins of hair, and hydroa on lips. Tired, sleepy, melancholic, irritable (consolation aggravates), and hypochondriacal. Sometimes sleepless.

In fine, Natr. mur. is one of the greatest of all the remedies in the Materia Medica, and certainly the chief one of all the Schussler salts (though each one of them is a wonderful polychrest in its own way), being the greatest of all anti-scorbutics (i. e., in the potencies), as well as no mean anti-sycotic and anti-syphilitic, where indicated by the symptomatology. Low potencies can be antidoted by higher ones, and the high by still higher, or else by smelling at the sweet spirits of nitre.—Dr. C. Sterling Saunder, in *Homoeopathic World*, May, 1909.

PHOSPHORUS.—The natural phosphorus patient is of a delicate, graceful makeup, with but a small amount of reserve force. Many times he is an emotional idealist, without the stamina to execute his creations and his life is badly balanced, often tragical. Although inherently brilliant, he is often easily tired out and soon enervated by mental strain, therefore he is inclined to indolence and mental inactivity. His physical sufferings are rarely proportioned to their gravity, nor does he fully realize them, but he is often a slave to his emotions.

Phosphorus is directly concerned in the nutritive processes and tissue building of the body. The integrity of the cells is largely dependant upon its presence, especially that of the bones, brain and nerves. When it is needed assimilation is below par and there is a cry for food at the most inopportune times. Should a crisis break it down completely, degeneration and even fatty metamorphoses quickly follow.

Diseases of mal-assimilation and almost numberless nervous symptoms

rest on this foundation, which also encourages acute affections that come on, slowly at first but moving toward a crisis or dissolution rapidly and with precision, when once established. At their height they are often accompanied by a rush of ideas, ecstatic deliria or a sense of duality (Bapt.). While the nervous system is weak, it is finely organized and sensitive to slight impressions; particularly do emotions leave unpleasant effects in the form of palpitations or anxieties, which seem to locate themselves in the stomach or abdomen. The patient is super-sensitive to light, odors, touch and barometric changes in the atmosphere. The effects which follow putting the hands in cold water are a good illustration.

The common sensations are those of internal emptiness or weakness, burnings and a sense of weight externally. The first is, of course, referred to the cavities, but felt more in the abdomen. The burning occurs anywhere, but oftenest between the scapulæ or on the palms, while external heaviness is usually most severely felt on the chest.

Patients are relieved by anything that supports and nourishes them. Sleep is probably the most helpful of these, then come easily assimilated foods, cool drinks, rubbing, etc. The headaches of phosphorus are often preceded by hunger (Psor.).

The greatest phosphorus symptom is an inability to lie on the left side. This has led the way to innumerable cures of many kinds; ordinarily it points toward circulatory disturbances and is associated with a weak pulse.

Phosphorus abstracts oxygen from the red blood corpuscles and causes fatty degeneration of the walls of the blood vessels, conducing to hemorrhages. It is a great hemorrhagic and pictures purpuric conditions, easy bleedings, profuse or vicarious menses and blood-tinged discharges.

By association this takes us to the treatment of pneumonia, where it has won many brilliant laurels. It is most useful when the patient has little to say, and only occasionally complains of being tired, feeling tight through the chest or as if oppressed there by a load. The fever is rather moderate, say about 102° and the expectoration not very free, but most likely blood streaked, rather than of pure blood. Here the following remedies should be carefully differentiated.

Aconite: When exposure to dry, cold, cutting winds brings on a restless anxiety and fear.

Veratrum viride: The head is so greatly congested that it makes the face dark or bluish, but in spite of this the patient objects to being raised up. The pulse is full and the muscles relaxed. Sometimes the cerebral congestion causes projectile vomiting or a red streak appears down the center of the tongue.

Iodium: When it begins with hoarseness and the room feels too hot and close. Rapid cases with high temperature and little pain. There is goitre in the family.

Kali iod: When it begins with sneezing and acrid nasal discharges, quickly followed by high fever and drowsiness.

Antimonium tart: The patient is drowsy and has a white tongue. Rattling through the chest and a cool sweat soon come on. Capillary bronchitis.

Lobelia inflata: Loose, paroxysmal cough, excited by a feeling of a

lump in the throat, with qualmishness and inclination to sweat.

Asclepias tuberosa: The patient wants to sit up and lean forward. Moist cough and general sweatiness. Burning diarrhoea, smelling like spoiled eggs. Pleuro-pneumonia.

Bryonia: Every cough hurts; the sufferer avoids all motion, lies on the painful side and feels faint whenever he is raised up. Irritable, thirsty and constipated.

Sulphur: Slow resolution. Hot feet and hands at night.

Phosphorus irritates the stomach, provoking a thirst for cool water which, is vomited as soon as it becomes warm or there are regurgitations; all worse at night. The irritation soon extends further, causing a gurgling down through the bowels, followed by an involuntary stool and a feeling as if the anus stood wide open. The constipated stool is too slender. Paralysis and paralytic sensations run through the whole remedy, from the nervous prostration with its brain fog and inability to collect ideas, to paralytic weakness of the legs (*Pic. ac.*) or actual paralysis of the bowels with diarrhoea, right after eating.

In destroying nutrition it helps to bring on diseases like alopecia areata, senile hearing, with deafness for the human voice and echoes within the ear, blindness which is better in the twilight, etc. Its effects are naturally more severe in the denser tissues and those not freely supplied with sentient nerves, making it very useful in rickets, necroses and pre-tubercular cachexias. When its action lies on the borderland of actual fatty degeneration we may have an oily film on the urine, fatty diarrhoea, frequent small hemorrhages or an acid blistering leucorrhœa with painful coition.

In diseases of the kidneys it ranks next to arsenicum. The appearance of a slight puff below the eyes often directs our attention to them or points to phosphorus as a remedy whether they are affected or not.

The phosphorus patient is sexually excitable, but weak; later the instinct is lost. Most cases have this peculiarity and it is particularly prominent in cerebro-spinal cases. It is rich in vertiginous symptoms and is often indicated when dizziness of some kind keeps pace with the disease present.

There are some noteworthy laryngeal symptoms such as hoarseness and rawness, worse toward evening and from changes of weather; cough worse in the cold air and from talking; relapsing membranous croup, etc.

It is well to know that phosphorus antidotes the vomiting which follows giving chloroform and that its overaction is antidoted by *nux vomica* or *terebinthina*. It is much like silica and complementary thereto.—C. M. Boger, in *Medical Advance*, April, 1909.

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

TWENTY ALLOPATHIC REMEDIES.—The therapeutics of our opponents can be covered with 20 remedies: It comprises two great groups of medicinal agents:

1. Those which act as specific, namely: *Salicylate of soda*, *quinine*, *mercury*, *iodide of potassium*, *digitalis*, *iron* and the *anti-diphtheritic*, *anti-tetanic* and *anti-meningococcic sera*. In this group are included *collargol* and the *metallic ferments*, but they occupy an inferior position, as their specific action is unequal and uncertain.

2. Those which, without attacking the disease itself, happily correct the resulting functional troubles. This is the history of *bismuth subnitrate* in diarrhoea and diseases of the stomach; of *bicarbonate of soda* and of *calcined* and *hydrated magnesia* in various forms of dyspepsia; of *theobromin* in renal insufficiency; of *arsenic* in wasting diseases and serious anemias; of *opium* in thoracic and abdominal troubles; of *chloral* in tetanic accidents, of *purgatives* in gastro-intestinal derangements. Among the last, *aloes* and *sulphate of soda* seem to claim the preference. As to *emetics* they are satisfied with *ipécac*; and *belladonna* and *atropin* serves them to combat painful dyspepsia and night-sweats. They hold *antipyrine* and *pyramidon* as the best type of *analgesics*.

The practitioner has sufficient means with these remedies; if he adds others to the list, it is more for a change than for success. Induce the sick to have patience, and the change of formula will have a good moral influence.

Our *therapeutics* (old school) is almost entirely composed of those medicinal substances which enter into the second group. Old pharmacopeias did not know others, and yet patients got well. Doctors are distinguished, one from another, by their success in obtaining good practices, and this fact reveals at once a double truth: First, that as Hippocrates asserted, many diseases are spontaneously cured; and second, that faith in the Doctor has always been counted as an essential condition for the recovery of health.—*Journal des Praticiens*.

QUININE AND MALARIA.—The fashion now, among our detractors is not to give strong doses of *quinine* in the treatment of malaria. We are not far from the times when Lancereaux recommended as a dose, before the paroxysm, from 1 to 2 grammes of *quinine*. And in the *Province Médicale*, 13 mars. 1909, we read that Dr. Fuster has for some time become an ardent defender of the *small dose of quinine*. In 1896, Bertin, of Algiers, had already recommended the administration of *quinine* in powders of 0.25 cgr. every eight hours. The time of eight hours was suggested to him by the observation that total elimination of the drug occurred in 12

hours. But this assertion is inexact, for the most recent researches allow to attribute to the elimination of *quinine* a longer duration (from 24 hours to several days).

Dr. Fuster employs the *bichlorhydrate*, the *tannate* and *ethylcarbonate* of *quinine*, the last also called *euquinine*. The chlorhydrate and principally the *bichlorhydrate* of *quinine* is extensively used in Germany. The latter salt, recommended by Prof. Plehn, contains 80% of the alkaloid. It is certainly the richest and most soluble. The *tannate* of *quinine*, on the other hand, is, so far, poorly defined and the poorest of all, but the observations of Prof. Angelo Celli has brought this salt into some prominence. Gaglio and Cervello have been able to establish, that the *tannate*, under the influence of the bile and of the pancreatic juice is easily absorbed. Having then, by this fact, a more retarded action, it may prove beneficial in the *preventive treatment of malaria*. *Euquinine*, the action of which is so vaguely known, is much more expensive than *pure quinine*. Its only advantage is, that like the *tannate* has hardly any taste.

Other details of this report are useful to know, but what is most important to bear in mind is the *favorable action of the small fractional doses of quinine*. The large doses, especially when prolonged, lead to serious results. In fact, Prof. Plehn has called attention to a *toxic neurosis of the heart* characterized by frequent and irregular palpitations, and resembling that produced by the abuse of tobacco, and observed sometimes in malarial patients returning from tropical countries. Probably, it is under the influence of repeated and prolonged heavy doses that this neurosis is developed, but the clinical demonstration of the fact is difficult to establish, as there are many other causes intervening in old cases of malaria, to explain this *pseudo-neurosis of the heart*. There is yet a remark of a great clinical importance relative to the experiments made with the apparatus of Bois-Raymond, of Berlin, to ascertain the part taken by the liver as a regulator of the absorption of *quinine*. As this organ transforms a part of this drug, it is natural to foresee that following the functional state of the liver, the activity of the administered *quinine* may vary in very marked proportions. It is also natural to conclude that the channel of administration carrying the maximum of *quinine* to the blood, is the subcutaneous, or better still, the intramuscular. There is no doubt that when the remedy is given by the mouth, it is first taken by the portal circulation, then carried to the liver and there partially destroyed. It should also be borne in mind that *quinine*, when given in *large doses*, alters the blood globules, while when given in *small doses*, it only kills the parasite. With 0.20 centigrammes, and even less, one can obtain this result provided the *hematozoon* is found at the moment of segmentation, while at this period the young parasite is incapable of resisting the specific action of *quinine*. This moment is easily fixed, as it corresponds to the actual paroxysm, or the attack properly so called.

With a systematic distribution of time, so as to meet the parasitary segmentation, and with a regularly retarded administration of the remedy after a few days of treatment, we can place the organism under the influence of the drug almost hourly, giving the frail, immature parasite little chance to overcome the destructive action of *quinine*. Finally, with a well conducted treatment, established on scientific basis, one is capable

of successfully combating with *small doses of quinine* the most severe cases of malaria, and this without exposing the patient to the evils of drug-intoxication.—*Journal des Praticiens*.

THE INFLUENCE OF COLORED LIGHT UPON THE BLOOD PRESSURE.—The experiments undertaken by Dr. Spirtow to ascertain the influence of *colored light* on the blood pressure, gave the following results:—*Bull. Gen. de Therap.*

Under the influence of *red* and *green light*, followed by the action of the ordinary light of the day, the *arterial tension* is progressively lowered in a characteristic manner.

This falling of the *blood pressure* under *red light* and *green light*, takes place at once, and attains, after a determined time which varies with the subject, its maximum, and is kept up to the end of the experiment by undergoing feeble oscillations. The *blood pressure*, under the action of *blue light*, succeeded by the *light of the day*, raises at the beginning of the flash (*eclairage*) to fall right after, but never is lowered as much as with the green and red irradiations.

Under the *ordinary light of day* succeeding the colored flash, the *blood pressure* rises, first very rapidly, then more slowly; while ten minutes after the cessation of the colored irradiation, it has not reached yet its normal rate.

By rendering the *ordinary white light* sombre, the blood pressure falls progressively, but the maximum of the fall is not great, and comes nearer to the maximum obtained by the *blue light*, than to that corresponding to the *green* and *red lights*.

The *blood pressure*, under the influence of *green light* and *red light*, acting after a previous exposure to darkness, falls rather strongly, but the extent of this lowering is more feeble than with irradiations with the same colors following the flashes of *ordinary white light*. The difference is not great, but constant.

The lowering of the pressure is not established in all cases immediately after the commencement of the irradiation, and attains its maximum relatively later than with the irradiation with the same colored rays following the action of the *white light*.

The *blood pressure* under the influence of *white light* after the action of darkness, raises slightly at first, to return to its initial level at the end of the experiment. The difference of the *blood pressure* under the influence of *blue irradiation* following the action of darkness, or of the *ordinary white light* consists in that the pressure does not fall lower than the initial level.

By allowing the *obscurity* to act again after the previous action of *red* and *green light*, the pressure increases, first rapidly then slower; while after the *blue light*, on the contrary, it falls below its point of departure.

Under the influence of *darkened white light*, after the action of *complete darkness*, the *blood pressure* raises first to return then slowly below the initial rate.

White light after *red* or *green light*, acting successively, make the blood pressure raise slightly at the beginning, but readily falls and does not differ from the level of the preceding color.

Blue light after *red light* or *green light*, makes the pressure ascend energetically at the start, to come down again slightly at the end of the exposure.

Red and green light after *blue light* make the pressure come down progressively, below the level it attains after the successive action of both red and green lights.

The author considers probably the following conclusions, inferred from his experiments: The *red* and *green lights* are distinctly differentiated from the *blue* by the fact that under their influence the *blood pressure* comes down progressively, while under the action of the *blue light* it mounts first, to descend progressively after, but, however, without reaching the level observed under the *green and red lights*. After the previous action of *darkness*, the pressure, under the influence of *colored light*, comes down much slower and in a less degree. In the seating and motionless position, ordinary *day light* and *darkened white light* will provoke in one hour, a slight fall of pressure, but a little more accentuated with the *white light*. After the action of *complete darkness*, the *darkened white light* produces, first, a slight elevation and then a fall of the pressure.—*Gazette Medicale de Paris*.

CHRONIC ECZEMA OF INFANTS.—(*Munch med. Woch.*, January, 19, 1908.) Feer says that real chronic eczema of infants is a constitutional disease and must be differentiated from various forms of dermatitis that likewise affect infants. The etiology of such eczema depends upon two factors—congenital predisposition and feeding. Overfeeding and chronic constipation are the usual concomitants of the seborrheic form of eczema. Improvement and cure usually follow the change from pure milk diet to mixed diet at the end of the first year. The second variety of eczema occurs almost exclusively in artificially-fed children. Such children are weak, pale and thin. The eruption is not as strikingly evident as in the first form, and consists of scattered patches of dry, scaly infiltrated lesions that may be found over the whole body. While local treatment of these forms of disease must be used in every case to make the children comfortable, the cure depends not upon this treatment, but upon changes in the diet of the children. Reduction of milk is the principal point of managing these cases, and carbohydrate food must be given to make up the deficiency in the food-stuffs. After the fourth month of age this is very easy, as the child can be fed on various cereal preparations and also given fruit juice. In later months the albumin of eggs must be avoided, as it is as badly borne as the milk proteids. Whey mixtures may be used in cases where the child is too young to take any other food but some form of milk. The whey may be modified with sugar and cereal gruel, a diet with which Finkelstein had great success in the treatment of eczematous children. Feer concludes his article with the report of a number of cases treated according to the methods outlined above.—*Medical Record*.

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SOME RECENT METHODS OF TESTING THE DIGESTIVE FUNCTIONS.*

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BEFORE dealing with the real subject of this paper I should like, as briefly as possible, to outline the routine examination of a case suffering from digestive troubles, especially if it be of the subacute or severe type or one that has resisted ordinary routine diet and treatment. It is because of the lack of this routine examination on the part of their medical advisers that hundreds of our people are yearly going to European health resorts seeking a rational diagnosis of the cause of their troubles with proper directions how to be rid of them.

In the investigation of such a case the first, most important step is a clear and definite history of the beginning, development and present aspect not only of the particular digestive abnormality from which the patient may suffer, but also of his or her manner of life, previous ailments, occupations, habits, employment, etc. In this connection it is essential to gain positive knowledge of the character and quantity of the food and liquids used and at what intervals taken. All this information is often difficult to obtain because of the lack of observation and consequent ignorance on the part of the patient unless the questioner is willing to devote considerable time to the task and uses great skill in conducting the investigation.

*Read before the American Institute of Homœopathy, June, 1909.

To anyone who has had any experience in dealing with diseases of the digestive tract it is unnecessary to emphasize the importance of this information. It is not at all infrequent to find patients attempting to live and perform their duties while subsisting on a diet affording little more than one-half the required nutritive value for normal adults; and, on the other hand, many are found trying to make their digestive and eliminative organs take care of nearly double the amount required by people doing active bodily labor.

After a clear history is obtained a thorough physical examination of the entire body is made, giving particular attention to heart, arteries, skin, and abdominal viscera with a chemical and microscopical examination of the 'twenty-four hours' secretion of urine.

Frequently, but not always, an examination of the blood is also essential.

Then follows the more specific examination of the digestive organs proper. This examination depends somewhat upon the nature of the symptoms complained of.

Frequently it is necessary to examine the fasting stomach by means of the now well-known stomach tube, and more frequently to examine the stomach contents following one or more of the standard test diets.

The character of this examination is shown in the following schema :

Name.

Date.

ANALYSIS OF GASTRIC FUNCTIONS:

Obtained Contents:

Vomit.

Tube.

Calibre of tube.

Length of tube introduced.

Introduction of tube.

Fasting Stomach:

Last food taken at. .

Consisting of.

Time of test.

Quantity obtained

Gross appearance of.

Microscopic.

Chemical analysis.

Qualitative Analysis:

Proteids.

Carbohydrates.

Free HCl.

Pepsin and Zymogen.

Chymosin and Zymogen.

Fat splitting ferment.

Lactic acid.

Volatile organic acids.

Blood or bile.

Quantitative Analysis:

Total acidity.

Acid salts.

Amount free HCl.

Digesting Stomach:	Amount combined HCl.
Test meal.	Amount total HCl.
Quantity.	Degree of diminution of HCl.
Time of ingestion.	Motility:
Time of removal.	Test meal.
Quantity obtained.	Time of ingestion.
Gross Appearance:	Time of removal.
Degree of subdivision of food particles.	Quantity obtained.
Layers.	Appearance.
Color.	Absorption:
Odor.	Method.
Amount of undigested food.	Results.
Abnormal constituents.	Special Tests:
	Mett. tube.
Microscopic Examination:	
Food particles	
Organic constituents.	
Microorganisms.	
Histological fragments.	
Crystals.	

The emptying capacity and motor power of the stomach are shown by the amount and subdivision of the food particles in the stomach contents.

The position and size of the stomach is determined by inflating the viscus while the tube is still in place.

A much neglected part of the examination is the chemical and microscopical examination of the feces, this being the next step in our routine examination.

For this purpose the test diet devised by Schmidt, or the following modification of it, is taken for three days, the first breakfast being taken with a 5-grain carmin capsule to demarcate the test diet stool.

The diet consists of:

MORNING.

One glass of cacao (prepared from 1-3 of an ounce of cacao powder, $\frac{1}{4}$ ounce of sugar, 2 ounces milk, and 6 ounces water); with this eat 2 ounces zwieback.

FORENOON.

Two glasses of oatmeal gruel (made from 1 1-3 ounces oatmeal, 1-3 ounce butter, 2-3 ounce milk, 10 ounces water, and one egg—strained).

NOON.

Four ounces chopped beef (raw weight), broiled rare, with 2-3 ounce butter, so that the interior will still remain raw. To this add 8 ounces potato broth (made of 6 ounces of mashed potatoes, $3\frac{1}{2}$ ounces milk, and 1-3 ounce butter).

AFTERNOON.

As in the morning.

EVENING.

As in the forenoon.

The first red stool is submitted to the following tests:

General Characteristics:

24 hour quantity.
No. of stools in 24 hours.
How passed.
Consistency.
Form.
Color.
Odor.

Gross Examination:

Parasites.
Food tests.
Mucus.
Blood.

Microscopical Examination:

Chemical Examination:

Reaction in C. C. 10-n NaOH.	} Before fermentation. } After fermentation.
C. C. of gas formed in feces after 24 hours.	
Hydrobilirubin.	
Occult blood (iron free diet).	

The conclusions relating to the digestive functions are then drawn from this test. Microscopical examination of pathological stools shows mucus, connective tissue, muscle fiber, pieces of potato and large crystals of triple phosphates. Normal stools should be smooth and show only a few brown points which are the remains of oatmeal husks.

In testing for occult blood the diet must be blood-free and given for from 3 to 5 days when the stool is submitted to separate analysis.

If each case of chronic digestive trouble were examined after the above routine and a proper diet and mode of life arranged according to the findings, our dyspeptics would be less of a bugbear than at present.

In recent years many new methods for gaining information relating to the digestive organs have been devised.

Among those for determining the size and location of the stomach is the X-ray photograph taken immediately after the ingestion of a solution of bismuth subnitrate. This method has been somewhat extensively used and in certain cases has numerous advocates. Among its disadvantages are the expense, and the possibility of poisonous effects resulting from the bismuth if not removed by the use of the stomach tube. Usually, sufficiently definite information can be obtained by inflation of the stomach through the tube by means of a Politzer's bag or the bulb of an ordinary atomizer, inflation being made in the recumbent position first and later in the erect position.

Another method for determining the position of the stomach is that of transillumination by the aid of the electric lamp in the stomach which has previously been filled with a solution of fluorescein as advised by Drs. Rose and Kemp, of New York. This, also, is a rather elaborate process and, as stated above, sufficient information can usually be obtained by mere inflation properly carried out.

A method of gaining information concerning the mucous membranes of the stomach by use of the gastroscope has recently been advocated by Chevalier Jackson and Boyce and also by Riehl. The latter claims that with the stomach filled with water it is possible:

(1) To see clearly the greater part of the mucous membranes of the healthy stomach and tell the normal coloring, folds and movements of the walls;

(2) To illuminate the greater part of the lesser curvature and the region of the pylorus;

(3) To observe the appearance of cancer.

It seems to me this method must also have a rather restricted application because of the difficulties of introducing a rigid tube through the esophagus into the stomach of the average individual. Especially will the use of this method be limited since exploratory incisions in the abdomen can now be made with so much safety and yield so much more definite information.

Some time ago Sahli, of Berne, published a new method of testing the gastric function without using the stomach tube. The method is based on the assumption that catgut in the raw state is soluble in the peptic secretions but entirely indigestible

in the pancreatic juices. To carry out the test, .05 gm. of methylene blue or .1 gm. of iodoform, or both together, are mixed with a sufficient quantity of extract of licorice to make a pill not over 3 or 4 mm. in diameter. This pill is enclosed in a rubber sack made by twisting the pill into the center of a square piece of thin rubber dam and tying the twisted neck with three turns of No. 00 raw catgut previously soaked in cold water until soft, care being taken that the knots are both on the same side of the bag. The rubber is then trimmed away carefully so that only a little free edge of about 3 mm. remains beyond the ligature. It is essential to see that the cut edges of the rubber do not adhere and that the completed pill sinks instantly in water and is water tight.

This "desmoid pill" is given with or just after the mid-day meal and the urine collected at periods of 5, 7 and 18 to 20 hours and later is examined for methylene blue or iodine or both. If the methylene blue or iodine be found within 18 to 20 hours after the ingestion of the pill, the test is called positive *i. e.*, stomach digestive juices are present.

The advantages claimed for this test are that it causes the patient no distress and that it is given with the principal meal and is therefore subjected to the activities of the gastric functions when they are stimulated to their utmost. In a series of experiments made at Johns Hopkins Hospital the conclusion was arrived at that the test is a very valuable one. Especially is this so in weak or nervous patients when the use of the stomach tube would be difficult or attended with possible danger.

Schlepfcr has recently recommended a modification of this test by the use of an aniline dye soup, but as the modification requires the use of the stomach tube, it would not seem to offer any great advantages.

For testing the permeability of the pylorus Einhorn recently devised the plan of attaching beads of different size to silk thread and having them swallowed. The beads are filled with methylene blue and coated with mutton fat and fastened at distances of 50 cm. and 75 cm. from the end of the thread. The beads are swallowed and the thread allowed to enter the stomach to the distance of 75 cm. only, the end being attached to the ear or in some other manner prevented from being swallowed and left in the digestive tract for 5 or 6 hours when they are withdrawn. If the distal bead is found empty and the proximal

one, which from its distance from the end of the thread could not possibly pass the pylorus, is still undisturbed, the conclusion is drawn that the distal bead has passed the pylorus and it is therefore open.

A modification of this plan is made by using a small capsule shaped bucket attached to the end of a silk thread 75 cm. in length and having it swallowed about an hour after a small meal. Three hours later the bucket is withdrawn and its contents examined. If intestinal juices or pancreatic secretion are present the permeability of the pylorus is shown and also chemical evidences obtained of the condition of the pancreatic secretion.

The same method has been used to locate stomach ulcers by leaving the bucket in position over night. In many instances the thread will be found stained and by estimating the distance of the stain from the teeth the probable location of an ulcer can be determined.

Still another modification of this plan designed especially to locate stomach ulcers consists in the introduction into the stomach of a rubber bag covered with silk gauze, attached to the end of a small stomach tube, by means of which and a bulb, the rubber bag is inflated and allowed to remain in the stomach for a half hour when the air is allowed to escape and the bag, with the balloon, withdrawn. This apparatus is designated "a gastric stamper." If an ulcerated surface is present a blood spot is found on the gauze at the corresponding point.

All of these methods have undoubted value in certain obscure cases but for ordinary use are very complicated and troublesome and will scarcely come into general use.

For the purpose of determining amounts of pepsin in gastric contents Gross has suggested a new method for which he claims a considerable degree of accuracy. He uses as test substance purified casein of which 1 gm. is dissolved in a liter of water by the aid of 16 C. C. of a 25 per cent. HCl (specific gravity 1.124) heated on a water bath. Into each of a series of test tubes is placed 10 C. C. of this .1 per cent. solution warmed to 39 degrees to 40 degrees centigrade, together with graduated amounts of the gastric contents to be tested. After 15 minutes in the thermostat a few drops of concentrated sodium acetate solution are added to each tube the result being the precipitation of the undigested casein. In this manner the minimum amount

of gastric contents sufficing to digest all the casein in 15 minutes may be recognized.

The unit of digestive power is represented by the ability to digest 10 C. C. of the casein solution in 15 minutes so completely that no precipitate is caused by the addition of the sodium acetate. He finds that in healthy individuals 1 C. C. of gastric juice has a peptic power of from 30 to 50 units after an Ewald meal.

Strauss and Levá suggest a method of testing the motility of the stomach. This consists in the ingestion of a test meal of butter and zwieback with tea. Later, the stomach is washed out and the fat content determined from which is estimated the stomach motility. This requires the assistance of a well-equipped chemical laboratory and in certain hospitals may be of value.

Because of the time consumed and the aversion of patients to the nature of Schmidt's diet, Einhorn announced in 1906 a new method called the "bead test" for testing the digestive function as a whole and to take the place of the more elaborate Schmidt method.

In its present form the "bead test" is as follows: Three beads of different colors are used. To one is attached catgut and decalcified fish bone both of which are normally digested in the stomach; to a second, raw beef and thymus gland enclosed in a gauze sack; and to a third, some potato with skin boiled 2 minutes; and the whole bead is coated with mutton fat. The beads are strung together by means of a silk cord and all enclosed in a gelatine capsule.

The capsule is given with one of the ordinary meals and the stools are passed in a sieve until the beads are recovered. After the beads have been gently washed free from fecal matter they are examined for the presence of any food substances that were attached to them. Under ordinary conditions the beads should appear in the stools in from 24 to 36 hours.

The conclusions to be drawn from this test are that if the beads are found in less than 24 hours there is an accelerated motility, and if not found until after 48 hours a retarded motility exists. The digestive functions are considered good if all the beads are empty or if there are but traces of fat or thymus left. If there is much catgut or meat, potato or fat present on the beads, it always indicates a poor digestive power for the substances in question. The test has been used quite ex-

tensively and found exceedingly useful in determining the functional activity of the digestive glands.

Einhorn himself says: "Through a large number of examinations I am convinced that the digestive functions of the bowels may be well judged by this test."

Ernest Young lays great stress upon the examination of feces for determining the digestive functions and examines a specimen before treatment is begun. His examination consists of a macroscopical and microscopical examination according to the regular methods and if only trifling deviations from the normal are found, the fault in the diet is corrected. If, however, the feces are found distinctly pathological in character the patient is placed upon his trial diet No. 1 and the feces again examined.

Trial Diet No. 1 consists of:

BREAKFAST.

A small whiting.

Four or five Huntley & Palmer breakfast biscuits.

Butter, the size of a walnut.

A breakfast cup full of tea with milk and sugar.

LUNCHEON.

A mutton chop.

Teaspoonful of cauliflower, spinach or stewed celery.

Two tablespoonfuls of well-cooked rice.

Four or five biscuits.

Butter.

A glass of water.

DINNER.

The same as luncheon but substituting about six ounces of rump or fillet steak for the mutton chop.

About $1\frac{1}{4}$ hours before each meal the patient is instructed to sip $\frac{1}{2}$ pint of hot water. Before commencing the diet an aperient is given to thoroughly evacuate the bowels and this is followed by milder aperients to secure daily movements. After a week the feces are again examined when the food may be altered according to the findings.

In severe cases if the preliminary fecal examination shows abundance of undigested food or fermentation he uses

Trial Diet No. 2, consisting of:

Minced beef, commencing with 3 or 4 ounces and gradually working up to 6 or 8 ounces three times a day with $\frac{1}{2}$ pint of hot water sipped slowly $1\frac{1}{4}$ hours before taking the meals.

The feces should be examined frequently, and, as the fermentation and catarrh decrease, starch and other foods may be cautiously added.

This plan is really a modification of that of Schmidt and for some cases would seem more practicable.

Most of the harmful dietetic fads and fancies which periodically sweep over our communities will be done away with, I am sure, by the more general adoption of the present known methods of investigating digestive disorders of which those above mentioned are the most practical of those recently introduced.

OTHER MEANS OF CURE THAN DRUGS.

BY

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(Presented at the Meeting of the National Society of Physical Therapeutics, Held in Detroit, June, 1909.)

THE press of to-day, medical, religious and even the everyday newspaper and magazine repeatedly contain articles and editorials which show unmistakably how the public is grasping at every straw for the surest method of cure of disease, mental and physical; cure of moral disease in its various forms, which is crime. There are societies for the prevention of crime, for the prevention of cruelty to children, for the prevention of cruelty to animals, for the prevention of the spread and development of various diseases, notably consumption, and for the prevention of pretty much everything under the sun that is undesirable. The idealistic tendency seems to look toward prevention rather than curing, thus making cure unneeded. The method of the Chinese to pay the physician while the individual is kept well, and when sick the physician's pay to cease, may not be a bad plan.

I do not believe as was once facetiously remarked by Dr.

Oliver Wendell Holmes, that "If all the drugs were cast into the sea, it would be well for man, but bad for the fishes." I do believe however that often too much or even the wrong drug may be administered. Many people are getting to think that so much drugs are not necessary, and are trying other methods of cure, as Christian Science and the Emmanuel Movement.

Christian Science has been scoffed at, ridiculed, and its end predicted, but still it grows. The same is true of the Emmanuel Movement. Instead of this attitude, adopt the attitude of not only being willing, but anxious to adopt any method of cure that is best and surest for your patient. Endeavor to find, and adopt and use the kernel of truth that is the basis and the secret of cures thus made by these cults,—namely suggestion.

It has been urged against the Emmanuel Movement by Dr. Frank C. Richardson, and the same applies with equal force to Christian Science and similar cults, that "According to published reports, the cases treated at Emmanuel Church belong largely to classes of disease in which malingering is possible or hysteria presumable."

All this is very interesting, because the growth of these organizations has been spontaneous, idealistic, and optimistic even if many of the arguments have been fallacies. The feeling of recognition of greater power of religion than has heretofore been felt, the evident benefit in the treatment of many diseased conditions by various cults where no actual pathological lesions existed has led to too great belief in the efficacy of these methods in treating diseases that are dependent on actual pathological lesions. It is recognized by all physicians that many conditions are best treated by suggestion, but no sane physician will forget the use of drugs and hygiene and instruments of precision, and machines of physical therapy. If we accept as true the statement that "Chronic rheumatism is the result of a faulty assimilation of food and deficient elimination of waste matter and something that dieting and a decent frame of mind will cure," we ought to adopt something besides drugs with which to treat our rheumatic patients.

I wish to call attention to a help in treating certain diseases such as consumption, asthma, anaemia, diabetes, bronchial troubles and many others by the inhalation of gas produced by passing ozone electrically produced through certain combinations of oil of pine needles and eucalyptus. The method cures by virtue of its giving the blood a greater oxygen carrying power.

So great is the benefit that in consumption an increased rate of gain of weight while being treated and a decreased rate of gain of weight when treatments are discontinued, other details of treatment and diet being the same demonstrate conclusively that the consumptive's chance of speedy and ultimate recovery is materially increased by this method of treatment.

A young woman of eighteen in six weeks' treatment gained twelve pounds, her cough stopped, rosy cheeks returned, sleepless nights disappeared, elevated temperature became normal, appetite returned and she resumed work. Tubercular germs had all disappeared.

A bad case of secondary syphilis in which there were several large ulcers on the buttock, leg, hip, back and lip had been under treatment for months and had been unable to get the ulcers healed. In five weeks' time his skin was perfectly smooth from the oxyoline treatment.

In old bronchial coughs the results of the treatments are very gratifying. In diabetes and neurasthenia the results are also beneficial as it is in all conditions where improving the quality of the blood by increasing its oxygen-carrying power is desirable.

In diabetes, Dr. Becknell, of Goshen, Indiana, has succeeded in wholly eradicating the sugar from the urine of two cases, and in several other cases far advanced has materially benefited the patient.

Insomnia often yields to the treatment, and from the very nature of the treatment in anaemia it is most beneficial.

How many of you have ever stood at the tomb of Napoleon? How impressive! The soft blue light streaming in through its massive dome and continually seeming to bathe the sanctuary with a benediction of quiet and peace. Does not this contain a hint of evidence of the sedative action of blue light and in contrast consider the effect of a flaming bright red color in the face of an angry bull? Viewed from this point it is not hard to see the different action of the two colored light, although it may be hard to tell why it is so. But it is continually so in nature—the same rain, sun, air and soil support at the same time and place plants, one of which makes a nourishing food and the other a deadly poison.

A young man who had been so lame as to necessitate cane and crutch, who had been unsuccessfully treated for broken down arch of foot, suspected hip joint disease, was found by

me on careful and thorough examination to have a fairly good arch of his foot, no knee or hip joint disease, but a tenderness over the sciatic nerve which I diagnosed as a neuritis of the sciatic nerve. A single treatment with the rays from my twelve hundred candle power lamp relieved to a great extent the pain, and a second treatment stopped the lameness entirely. Four more treatments were given and the young man continues in perfect health without any pain or lameness whatever.

I have repeatedly been able to relieve the pain of sciatic rheumatism and lumbago, so that the person limping into my office walked out without lameness. In tubercular conditions I often use the lamp over the chest and back after the patient has surcharged the blood with oxygen by the oxyoline treatment. I believe in this way we can further improve the metabolism and probably hasten complete recovery.

Be careful, however, or the pendulum will swing too far and suggestive therapeutics or the hobby of some cult be employed when drugs are better. Avoid extremes. Even now there seems to be a reaction from the drug nihilism as advocated by Osler. In the treatment of consumption, believe me, much as it has been the habit of many to decry the use of drugs and employ only diet, fresh air and hygienic surroundings, that physician who adds to his armamentarium the indicated drugs and certain instruments or principles of physical therapy, viz., a vibrator, a high power lamp, an ozone generating machine, and uses them intelligently in connection with diet, fresh air and hygienic living, will cure a larger number of his patients and cure them more quickly than if he depends solely on air, food and hygiene. The best and most progressive method of treatment is none too good for one's patients, and one should give it to them, if possible, even if the equipment necessary does cost thousands of dollars.

Listen to Dr. Porter's definition: "A homœopathic physician is one who adds to his knowledge of medicine a special knowledge of homœopathic therapeutics and observes the law of similia. All that pertains to the great field of medical learning is his, by tradition, by inheritance, by right." Read it again. Read it often. Be broad-minded enough to give those employing you the benefit of all knowledge from every source, no matter what, so far as power within you lies.

THE PERITONEUM.

BY

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(Presented to the King's County Medical Society, Brooklyn, N. Y., June, 1909.)

MY friend, the enemy: Dr. Jekyl and Mr. Hyde. Sometimes one, sometimes the other,—the peritoneum, either friend or foe. But it is fast becoming a friend in need, hence a friend indeed, as we know it better, take more liberties with it and at the same time show it more deference. But how about the anxious hours, the fear and trepidation, the worry, the unconsciously half-breathed, half-muttered prayer, of fifteen, even ten years ago? Those were the days of worry, the times of keenly felt responsibility. Plainly speaking, we knew we were taking chances, and we were; but we know each other better now, and we have become quite intimate. One takes the other into confidence and thus we share each other's troubles, worries and responsibilities.

I believe that I have been prompted in selecting the peritoneum as my subject for this evening because of my memory of and respect for the late Dr. Geo. R. Fowler, who lived and worked in Brooklyn, who gave so much to the medical world for the treatment of peritonitis, by whose "position," for the victim of this disease, the well known Fowler position, so many lives have been saved, and who, as if by the irony of fate, himself died a victim of appendicitis and peritonitis, a disease and complication to the study of which he had devoted so much time and thought. Truly may we say of Fowler, "he saved others," by the position which bears his name, "but himself he could not save."

The peritoneum is one of the anatomical *bete-noirs* of the medical student. Complicated in its anatomy,—of course it is,—but a general, cursory survey of it may be given in comparatively few words. Its numerous irregularities, processes, and extensions may be readily explained by remembering the great mobility and Protean characteristics of its attached viscera. The fact that it tethers and supports these viscera, forming ligaments for them and covering them with a frictionless surface, should not be lost sight of. One of the most remarkable and ingenious folds, when the object it ac-

compleishes is considered, is the mesentery. Attached to the posterior abdominal wall along a line extending from the body of the second lumbar vertebra, on the left, downward and to the right as far as the right sacro-iliac joint, a distance of only eight inches, it passes forward into the abdominal cavity to develop a length varying from fifteen to thirty or thirty-one feet, (the average length being twenty-two and one-half feet), forming numerous folds or flutings for the attachment of the jejunum and ileum. How appropriate the simile of the poet anatomist, Oliver Wendell Holmes, who likened the folds of the mesentery to the "shirt ruffles of a preceding generation."

The great or gastro-colic omentum extends from the greater curvature of the stomach downward toward the pelvis and then upward to the transverse colon. This is the structure employed by the surgeon in performing Talma's operation, where the diaphragmatic peritoneum and convex surface of the liver, and the parietal peritoneum and surface of the spleen, are rubbed with dry gauze, and where this great omentum is similarly irritated and is then stitched to the peritoneum of the abdominal wall, all for the purpose of forming adhesions and thus developing new blood vessels, that the collateral circulation of the portal system may be augmented and perhaps bring about amelioration of a hepatic cirrhosis.

The surgeon takes advantage of the anatomical relationship of the peritoneum as it leaves the anterior abdominal wall at the level of the symphysis pubis and opens the bladder without infecting the peritoneal cavity. The peritoneum dips down into the prevesical space, or the space of Retzius, before it extends onto the summit of the bladder, but it is not adherent to the anterior wall of this urinary reservoir. By distending the bladder artificially this fold of peritoneum is carried upward, and the surgeon's hand, through a suprapubic incision, further lifts it up out of harm's way, and then the bladder may be opened safely without trespassing upon the peritoneal cavity, and thus the mortality of "the high operation" is materially lowered. It is an interesting historical episode that this absence of the peritoneum on the anterior vesical wall was known to the profession and even to the laity, three hundred years ago, for Jean de Dot, a smith of Amsterdam, Netherlands, knew of this safe route to the bladder, and he operated upon himself, performing a suprapubic cystotomy and removing a large calcu-

lus. The knife which he used, the calculus, and a picture of de Dot himself, may be seen to-day in the museum at Leyden.

What an important part the development and anatomical arrangement of the peritoneum plays in deciding what variety of hernia shall exist. In the majority of instances the testicle descends, carries with it a double layer of peritoneum which becomes the tunica vaginalis testis, and the peritoneal cavity is shut off at the internal abdominal ring, in the transversalis fascia. Sometimes the process of peritoneum prolonged into the scrotum remains as a patulous tube, and then a congenital hernia is an easy thing. This may be precipitated shortly after birth, or perhaps not for many years, but no matter when, it is to be called a congenital hernia,—a hernia of congenital origin. Again, sometimes the peritoneum carried down with the testicle remains patent nearly as far as the testicle, although the tunica vaginalis is fully formed. A hernia occurring in such a case would be a hernia into the infundibuliform process. Such a variety is practically the only one found in female children; it is, of course, in this sex, a hernia into the canal of Nuck.

On the other hand, the process of peritoneum carried down by the testicle may close at the upper end, but remain patent from a point at or near the internal abdominal ring down, being continuous with the cavity of the tunica vaginalis testis. A hernia passing along the inguinal canal here would be called an encysted, or an infantile hernia. In cutting down to reach the sac, which is behind, of such a hernia the operator would incise three layers of peritoneum, two for the persisting funicular process, and one for the anterior wall of the sac.

A most essential part of the anatomy of the peritoneum is the close association of this intricate structure with the lymphatic system,—in fact the so-called peritoneal cavity is virtually a huge lymph space, extensively drained by many efferent vessels, which begin in the innumerable stomata existing between the single layer of flattened endothelial cells composing this membrane.

One of the practical physiological considerations at this point is the lymphatic drainage of the peritoneal cavity. It has been demonstrated experimentally that from three to eight per cent. of the body weight in fluid can be absorbed by the peritoneum from within its cavity in one hour, which is equivalent to the total body weight in twenty-four hours. This rapid

absorption of fluid is recognized to-day as the means of easy and prompt dissemination into the system of toxic material which invades the peritoneal domain through the vulnerable wall of the gastro-intestinal tract, and is frequently followed by the direst consequences to health and life. Moreover, absorption occurs much more rapidly through the diaphragmatic peritoneum than through the pelvic,—in other words, is enhanced by the Trendelenberg position, where the pelvis is elevated, or just the reverse of the Fowler position, where the diaphragm is elevated. This is explained, anatomically, by the far greater number of stomata in the diaphragmatic peritoneum and the many lymphatic vessels leading from them, and by their closer proximity to the point of emptying into the thoracic duct and its tributaries, thence into the internal jugular and subclavian veins at the base of the neck, *i. e.*, closer to the point of suction into the venous circulation. Fowler, recognizing the fact that absorption takes place most rapidly from the diaphragmatic surface, and least actively from the pelvic region, advised elevating the head of the bed so that, by gravity, the current of septic fluids might be retarded and the absorption of toxic material so controlled that what might prove to be a lethal dose would be avoided. No better explanation of the greater and more rapid fatality of septic processes in the upper abdomen as compared with the same in the pelvis could or need be sought for than a knowledge of the lymphatic drainage of the peritoneum. And yet, how many years elapsed before surgeons awoke to this fact.

Permit me to call your attention to one more anatomical fact which possesses considerable practical interest. Do not forget that the cerebrospinal and sympathetic nervous systems are so called for convenience, but they are intimately and extensively connected with each other and exchange fibers freely. To illustrate this and to explain my premise, the skin over the abdomen and the abdominal muscles (external and internal oblique, transversalis and rectus) are supplied by the lowest six spinal nerves of the thoracic series, and these selfsame nerves also send branches into the sympathetic system by the rami communicantes where, joining the splanchnic nerves, they ultimately reach the superior mesenteric plexus, from which they proceed to innervate the peritoneum and abdominal viscera.

The relation of the nerve-supply of the muscles to that of the underlying viscera explains the rigidity of the abdominal

wall so commonly present in injury or disease of the abdominal viscera. Where, in the human body, is there a better, a more typical illustration of a reflex? Hilton compares the peritoneum and the muscles of the abdomen to the synovial membrane and the muscles moving a joint. The rigidity that follows inflammation in either case is due to the reflex muscular spasm resulting from the correlation of the nerve-supply, and therefore becomes a valuable index of the existing lesion.

In illustration of this relation of nerves and nerve-centers, Treves says, very truly, that almost all acute troubles within the abdomen begin with the same group of symptoms, and that until some hours have elapsed it is often impossible to say whether a violent abdominal crisis is due to the perforation of an appendix or a portion of the intestine, the bursting of a pyosalpinx, the strangulation of a loop of gut, the passage of a gall-stone, the rupture of a hydatid cyst, an acute infection of the pancreas, the twisting of the pedicle of an ovarian tumor, or a sudden intraperitoneal hemorrhage.

Since the peritoneum is an enormous lymph space, and is a part of the lymphatic system, peritonitis is in reality lymphangitis. Peritonitis, as the term is used by the surgeon, is always due to bacterial invasion. The variety of peritonitis is determined, in part at least, by the kind of bacterium invading it, while the severity of the attack depends not only upon this but also upon the susceptibility and vulnerability of the peritoneum. And every surgeon of abdominal experience knows that the peritoneum does vary greatly in its power of resistance and its susceptibilities in different subjects. In one the peritoneum submits safely and, let me say, stoically, to a great deal of punishment: it can be handled, mauled, abused,—with impunity. In another it is so vulnerable that to even look at it, not to think of touching it, results in peritonitis, perhaps fatal in degree.

I remember witnessing an operation performed for the radical cure of inguinal hernia. The ensemble of operator, assistants, technique, surroundings, asepsis and antisepsis betokened a perfect result. The hernia was small, a bubonocoele, and there was no protrusion of any intra-abdominal structure at any time during the operation. The internal ring was also small; no instrument, nor even a gloved finger, was introduced into the peritoneal cavity. But the young man died in three days from a typical attack of peritonitis. Here was a perfectly

clean operation performed under ideal conditions, with no known source of peritoneal infection. It must be concluded that the peritoneum in this case was peculiarly sensitive to traumatism, for the slightest injury conceivable resulted in a fatal inflammation.

Bacteria reach and attack the peritoneum through a wound in the abdominal wall, with or without the entrance of a foreign body; by way of a Fallopian tube; by extravasation of the contents of any of the abdominal or pelvic viscera through a rupture in their wall, by the passage of micro-organisms through the inflamed and damaged walls of any of these viscera; by inflammatory lesions of the pancreas and spleen, by fat necrosis, by inflammation and gangrene resulting from strangulation and intussusception; and by the rupture of an abscess into the peritoneal cavity.

From personal experience I am constrained to say that on a number of occasions it was impossible for me to discover the source of infection. Early one New Year's morning I was summoned to see a woman forty-five years of age, who had been suffering from an attack of tonsilitis for the previous three or four days. The day before my introduction to the case, the patient asked her physician at the time of his morning visit if she might eat an apple. He gave her permission to do so, and she ate it at once. In less than an hour this physician was summoned back to the house, when he found his patient in great abdominal pain. She grew worse during the day and the following night, and when I saw her at six o'clock the next morning she had a full-blown attack of peritonitis. An incision through the right semilunar line gave escape to a considerable quantity of slimy, slippery, mucilaginous pus. The peritoneum, both visceral and parietal, was everywhere markedly injected. There were no adhesions, the pelvis was without a focus of infection, the appendix appeared normal to the eye and to palpation, the gall-bladder, bile-ducts and pancreas were unaffected, nor could I find a cause anywhere for the septic peritonitis. I hardly need add that this woman died. Had eating of the apple anything to do etiologically with this fatal peritonitis? Probably not.

A gentleman attended to business on Saturday, enjoying good health. He retired that night feeling perfectly well. At eight o'clock the next morning he suddenly became ill, suffering intense abdominal pain and vomiting. No error of diet,

constipation, or other cause could be found responsible for this attack. He called his family physician who called me at seven P. M. At that time his face was Hippocratic, his abdominal tenderness severe, his muscular rigidity great. At nine P. M. I opened his abdomen and gave vent to a moderate quantity of dirty-yellowish, slimy, slippery pus. The peritoneum was but slightly injected and there were no adhesions. Thorough search for a cause resulted negatively; I removed his appendix (force of habit.) We worked hard with him all night, but he died Monday morning at eight o'clock, in the throes of sepsis. A careful post mortem could discover no lesion of any description or cause for this fatal peritonitis; the abdomen was examined from diaphragm to perineum and from wall to wall. Nor was any more pus found.

Perhaps the worst case of hemorrhagic peritonitis I ever saw or heard of, was in a woman seven months pregnant, who was sent into the hospital one evening with the diagnosis of appendicitis. No one ever presented such profound symptoms of peritoneal infection; this poor woman had surely received a knockout dose. When I opened her abdomen a large amount of blood-tinged serum escaped. The peritoneum was intensely injected, its vessels were engorged and tortuous, and it appeared like a vascular sheet on the verge of bursting. I sought for the cause of this hemorrhagic peritonitis but could find none in the whole abdomen. Nor did a thorough autopsy reveal any. Before she died (in ten hours) she aborted.

As to the treatment of peritonitis I intend only to suggest the wellknown methods which are, for the most part, mechanical and surgical. It affords me pleasure, however, to give testimony to the efficacy of homœopathic remedies which, I am persuaded, do act curatively. I could report successful results from aconite, belladonna, bryonia and mercurius.

Let me interpolate a case. A young lady had positive, though not advanced signs of pulmonary tuberculosis and symptoms of fully developed tubercular peritonitis. An allopathic physician and an allopathic surgeon declined to open the abdomen and gave the case up as hopeless. My first examination proved the presence of encysted peritoneal fluid (probably pus, as the girl was septic) and extensive peritoneal adhesions. We decided not to operate and I prescribed *mercurius vivus*, 3x, for one month and then iodide of arsenic, 1-50 of a grain, three times daily, with pulmonary gymnastics

and forced feeding. In five or six weeks all evidence of abdominal fluid had gone and the patient's general condition was greatly improved. Her health was ultimately fully restored.

I could report a number of other cases of peritonitis cured by mercurius or by bryonia, in which I have great faith.

In addition to the surgical necessity for opening the abdomen, removing the causative lesion and draining the peritoneal cavity; besides administering suitable purges and enemata, beyond a doubt the most effectual controlling and remedial plans of treatment are to be found in the Fowler position and the Murphy enteroclysis, or proctoclysis.

The reasons for the Fowler position I have already given. Let the head of the bed be raised, according to the seriousness of the case and the severity of the symptoms, to an angle of forty-five degrees, or less, and maintained at this elevation until all possibility of sepsis is past. I do not know what apparatus—block or bed—you use here in Brooklyn and in New York to keep your patient in the Fowler position, but in Philadelphia we have a very convenient and easily operated iron frame which fits the ordinary hospital bed, and which has two perpendicular side bars near the head, notched to catch upon the base of the frame at any desired height and to thus support the mattress and patient. It is the custom of some surgeons to employ the Fowler position after every abdominal section, even when the case is free from inflammation and infection and when no drainage has been employed. Personally, I have not followed this practice and up to the present can see no necessity for it.

The other invaluable adjuvant in the post-operative treatment of abdominal infections is the Murphy enteroclysis. Judging from the numerous medical press notices and articles relating to it and its seemingly universal employment, we must accord it a place second only in importance to the Fowler position. And I am sure that some would make it second to none. Of course, we will employ both the Fowler position and the saline enteroclysis, when our best judgment prompts us to; we will give our patient the benefit of the doubt and that means, in the vast majority of cases, the benefit of both the Fowler position and the salt solution.

It has not been my intention to give you a cut and dried textbook thesis this evening, nor to systematically discuss the different varieties of peritonitis, but rather to present to you the

subject of the peritoneum as a peritoneum, and to take, as it were, a bird's-eye-view of some of the interesting and all-important facts associated with it. I hope I have succeeded.

POLYCYSTIC KIDNEY—IS DECAPSULATION AND MULTIPLE PUNCTURE OF VALUE THEREFOR?

BY

HORACE PACKARD, M. D., BOSTON, MASS.

Professor of Surgery, Boston University.

(Read before the American Institute of Homœopathy, June, 1909.)

OF all surgical conditions of the kidney, polycystic degeneration has been most discouraging because of the limitations imposed by the very nature of the difficulty.

Polycystic degeneration almost invariably develops simultaneously in both kidneys, is slow in its progress and is likely to finally reach enormous proportions and interfere seriously with the functions of the abdominal viscera by pressure. It is the most contradictory disease to which the human frame is subject. It may result in uremic coma and death and nothing be known of its existence until revealed at autopsy; on the other hand, it may go on until each kidney is a complete congeries of cysts forming a tumor ten times the volume of a normal kidney, without material deterioration of the general health.

Between these extremes there may be anorexia, coated tongue, nausea and vomiting, flatulence, diarrhœa or constipation, cardiac hypertrophy, atheromatous arteries, hemorrhagic tendency, headache, giddiness and delirium.

Usually nothing is known of the disease until the kidneys become so large that they are felt as large bossy masses in either flank.

Early in my professional career from time to time I came across cases of polycystic kidney only to consign them to the dump heap of surgical impossibilities. In January, 1905, a case came under my care in which I stumbled upon a large polycystic kidney of the left side exposed through a long diagonal posterior lumbar incision. Without any precedent as a guide but in a spirit of inquiry, I stripped off the capsule and

proceeded to lay open every cyst within reach. When this had been completed the volume of the tumor had been reduced about one-half. A very ragged unpromising looking mass of tissue resulted from this treatment but nevertheless it was tucked back in place and fastened in its normal position with a suspensory suture of silk worm gut passing through the parenchyma and the abdominal parietes. The patient made a good recovery and one year later was operated upon in the same way for exactly the same condition on the right side.

Four years have now elapsed since the first operation and three since the second. Recovery from the second operation was much more prompt and uncomplicated even though an appendectomy was made at the same time and through the same opening. This is possibly accounted for from the fact that in the intervening year the patient's general health had materially improved.

Herewith is the history of the case taken at the time of the first operation:

Patient, female, age 33, has suffered for a long time from an indefinite pain in the right side of abdomen, difficult to locate, but accompanied by digestive disturbances, indifferent appetite, flatulence, constipation. She is ambitious to do all the things which are done by others in the way of work, amusements, and exercise, but walking, playing golf, or riding horseback, fatigue her so much that she has been obliged to give them up. She has had, in the remote past, rheumatic fever, chorea and hysteria. In February, of 1904, she had a severe attack of colicky pain with nausea and vomiting which led to a suspicion of appendicitis. She was at that time confined to her bed for several weeks. In the spring of 1904 she was examined by a surgeon who failed to find evidence of any pathological condition demanding operative treatment. Her parents are dead; mother of cancer, father of "kidney trouble."

Her physical condition when I first saw her was such that she was able to come to my office from her home, a journey of fifty miles, and returned the same day. She was in fairly good flesh but her face was somewhat sallow and drawn, with lustreless eyes.

Examination disclosed the lower pole of each kidney extending sufficiently below the ribs to be plainly apparent on palpation. My first impression was that we were dealing with a case of double floating kidney. The bossy surface, character-

istic of polycystic kidney, was not then apparent through the abdominal wall.

Urinary examination showed a total excretion of 815 cc., specific gravity 1022, total solids 41.3 grms., urea 28.56 grms., slight trace of albumin, a few blood disks and a few hyaline casts.

Fifteen months after the first operation the patient again appeared at my office urging that the other kidney be operated upon. I could not satisfy myself that she had materially improved as a result of the first operation since the urinalysis showed practically no change but she was very strenuous that she felt better and expressed strong conviction that with the other kidney treated in the same way she would be well. It is no exaggeration to say that she *clamored for* the operation.

In April, 1906, the right kidney was exposed through a long posterior diagonal incision and lifted out. The capsule was stripped off, every cyst laid wide open, the ragged remains replaced and suspended by two Pagenstecher threads passing through the parenchyma and the posterior abdominal parieties.

Through the same opening the appendix was exposed and removed because of strong suspicion that the above mentioned attack of abdominal pain, nausea and vomiting, had been from that source.

Her recovery was prompt and uncomplicated. At the present writing four years and three months have elapsed since the first operation and three years since the second. Within a few days I have had the opportunity to make a thorough examination with the following findings:

April 2, 1909. Miss B., age 39. Polycystic kidney. Operation on left January, 1905; on right January, 1906.

Present Condition.—Weight 143. Flesh firm, color of face good with trace of pink in cheeks. Eyes bright, lips red. Walks from home to town daily and back (a mile each way) and often walks more than this amounting to three or four miles. Does it because she enjoys it. Feels tired after but rests if feels inclined and usually out again in afternoon. Appetite excellent—eats three good meals a day and enjoys them. Retires at 10 and sleeps all night. Feels inclined when in house to rest a good deal. Menstruates regularly.

Physical Examination.—Both kidneys can be felt on deep palpation. The left seems long, narrow and almost cylindrical, slightly irregular on surface. The right seems a little

wider than the left, is situated a bit lower and surface more irregular; both are well fixed and insensitive.

Has functional weakness of heart. On violent exercise like golfing or much use of left arm feels pain and discomfort in cardiac region.

Took auto trip last summer from Fall River to Springfield, Mass., Woonsocket, Vt., White Mountains, N. H., Kennebunkport, Me., and then in one day back to Fall River (four days). Felt tired after so strenuous a tour but suffered no permanent ill effects.

Apparently vast improvement has resulted from the course pursued in this case. It is pertinent to inquire in what way it has come about.

At the outset it must be conceded that there was at the time of operation still a fairly large amount of kidney parenchyma doing work—the urinalysis showed it. It is also quite within the bounds of speculation to think of many portions of kidney cortex and medulla so located between enlarging cysts as to materially cripple the secreting function by pressure not only upon the glomeruli and uriniferous tubuli but also upon the arterial ramifications and capillaries themselves.

It seems reasonable to assume that laying open the cysts and evacuating their contents, at once relieves pressure.

Ample proof is at hand that decapsulation is followed by adhesions between the cortex of the kidney and the adjacent abdominal parietes with new vascular communication.

It would seem therefore fair to assume that in multiple puncture and decapsulation we have opened the way to the establishment of better conditions for kidney functions.

The question still remains as to the ultimate effort of multiple puncture upon the cysts. If they fill again and continue to develop no permanent good has been accomplished. On the other hand, if time shall prove that a cystic kidney so treated does not continue to increase and multiply, then much has been done in favor of continued efficient functioning, and relief to the patient from the weight and pressure of large heavy polycystic kidneys.

In the case described above the first kidney operated on four years and three months ago is small and inoffending—apparently much smaller than it was at the close of the operation. As near as I can judge it is not now more than four inches long and an inch and a half in diameter. The other kidney is

not yet as small but it was operated on fifteen months later and has therefore had less time to adapt itself to the newly established conditions.

I have had but one other case of polycystic kidney in the intervening time and that was only about one year ago and therefore not time enough has elapsed to judge of the ultimate effects. I may say, however, as a preliminary report that she is now at work earning her living and has the appearance of a healthy woman. She has gained 40 pounds since she was dismissed from my care, walks comfortably any reasonable distance without undue fatigue except that her back aches (this may be due to the fact that the right kidney failed to make adhesions in its proper location and therefore sags well-down toward the inguinal region). Her face is plump and full, good color, appetite good, food digests well and she sleeps well.

CONCLUSIONS.

1. Decapsulation and multiple puncture offers hope of affording relief in cases of polycystic kidney.

2. If still moderate in size the kidney may be exposed through a long diagonal lumbar incision.

3. If the polycystic degeneration has reached large proportions so as to present obtrusively in the side of the abdomen incision along the linea semilunaris will afford better access.

4. The capsule should be stripped off from the whole cortex and every cyst laid open which can be reached even to the uttermost depths of the mass.

5. The ragged remnant remaining should be replaced as nearly as possible in its normal position and fastened to the posterior abdominal parieties by suspension sutures.

6. The wound should be supplied with abundant drainage.

7. The patient should be kept in a recumbent posture for at least six weeks to allow strong adhesions to anchor the kidney firmly in place.

SUPPURATIVE PANCREATITIS.—Dr. Lenoble, of Brest, reports with Dr. Quelme, the observation of a woman, 46 years old, who suffering from *phlegmasia alba dolens* of the left lower limb, presented in addition a painful tumefaction in the left iliac fossa, with albuminuria and glycosuria.

The patient died the next day after her entrance in the hospital, and the autopsy revealed an abscess situated in the left half of the pancreas, with surrounding peritonitis and a cystic tumor of the left ovary.—*La Semaine Medicale*.

THREE CASES OF REFERRED PAIN.

BY

JAMES C. WOOD, A. M., M. D.

(Read before the American Institute of Homœopathy, June, 1909.)

CASE 1.—Patient aet. 36; one child twenty months old. Miscarriage ten weeks before I saw her after which she suffered most excruciating pain in the region of the left hip joint. She was a very large woman, weighing at least 190 pounds, and of a nervous temperament. Her domestic relations were not happy and her friends feared that her mind would give way. The pain in the hip was of the most excruciating character with all the subjective symptoms of suppuration. Twice chloroform was administered in order to locate the cause of the trouble, but even under anaesthesia, no local evidence of the disease could be found in or about the hip. The only pelvic lesion that could be detected was an apparent cirrhosis of the ovaries. An exploratory puncture was made into the hip with negative results. The pain was so intense that only by the administration of large doses of narcotics could it be controlled.

On November 18, 1902, I made an exploratory incision and found both ovaries little degenerated masses, as hard as cartilage, and resembling in appearance miniature brains. Both ovaries were tied off. The appendix was thickened and closely adherent to the caecum and it was therefore removed in the usual way.

The patient was relieved from her pain almost as soon as she recovered from the anaesthetic and has remained perfectly well since.

CASE 2.—Patient aet. 32; has for more than ten years suffered from intense pain radiating from her back and the region of the kidneys down into her legs, locating itself in the region of the knee and in the hips. It was a pain which is of a most distressing character almost completely prostrating her, making it difficult to keep about and many times forcing her to bed. It was aggravated by nervous excitement and by being on her feet. She was a large, heavy woman, having grown rapidly large within the last two or three years, weighing 200 pounds. Except when she was suffering pain, she looked healthy, full blooded and strong. When she was suffering pain

the face was white, especially about the mouth. There was not much indigestion, the bowels were regular; there was a slight leucorrhœa but not marked. She was so large and heavy that a satisfactory bi-manual examination was utterly impossible. An examination of the urine resulted as follows:

Transparency—opaque.

Color—amber.

Reaction—acid.

Specific gravity—1024.

Sediment—flocculent.

Urea—2.5 per cent.; 10.78 grs. to oz.

Albumen—trace.

Sugar—negative.

MICROSCOPICAL.

Transitional epithelium.

Pus cells.

Red blood cells.

Calcium oxalate crystals.

Subsequently I drew the urine from each kidney with the following result:

MICROSCOPICAL.

Right kidney:

Very few epithelial cells.

Calcium oxalate crystals.

A few bacteria.

Left kidney:

A few transitional epithelial cells.

A very few calcium oxalate cells.

Many bacteria.

The first examination of the urine made me suspicious of renal calculus and I thought possibly the pain in the abdomen and limbs was a referred kidney pain. The patient had been under the treatment of many physicians, all, however, pronouncing the condition rheumatic. At any rate treatment directed toward the rheumatism in the nature of diuretics and anti-uric acid remedies benefited her but slightly and not permanently. The condition became so aggravated that she begged for relief of some sort.

Accordingly, on January 27, 1909, I opened the abdomen through an incision long enough to admit the entire hand. The abdominal walls were very thick and after exploring both kidneys and the gall-bladder area I looked for the appendix. It required not a little effort to locate it, as it was post-caecal and was delivered with a good deal of difficulty, owing to the large amount of sub-peritoneal fat. I first freed the caecal end of the appendix, after which I caught this in two forceps, cut it off and inverted the stump in the usual way. After cauterizing the distal end of the stump, I carefully dissected it out from beneath the peritoneum. For about six inches I could trace it as hard, cord-like mass extending well up under the liver. While pulling upon it after the proximal end had been freed, it finally slipped from its sub-peritoneal bed as would a large angle worm when pulled from clay. It was seven inches in length, was full of muco-purulent matter and contained three shot-like masses, which proved to be grape seeds. The ovaries were then explored, and both were found small, hard and very much contracted. The tubes were thickened and there was a varicocele of the right side of a most marked character. Both ovaries and tubes were removed and the small undersized uterus suspended to the peritoneum by the Kelly method. In removing the ovaries and tubes I did not tie en masse but whipped the peritoneal edges of the broad ligament over with silk. The abdomen, because of its thickness, was very carefully closed with two layers of catgut, interrupted silkwormgut stitches three-fourths of an inch apart, and a buttonhole skin stitch. Chloroform and the H. M. C. mixture were used for anaesthesia and the patient was removed from the table in excellent shape.

The patient convalesced ideally from the operation and had but little pain for the first two weeks; then because of some misunderstanding in her hospital arrangements she passed into a nervous state which prostrated her for nearly two weeks. From this she gradually recovered until at this writing she is comparatively free from pain, is happy and cheerful and will, I believe, get well.

Case 3.—Patient aet. 32; she came to me in the spring of 1905 from a prominent Toledo physician, who stated that she had had glycosuria and, when he saw her, tachycardia. He also said that she might have had a neuritis or neuronitis. An eminent Chicago neurologist had reported as follows:

"I saw Miss ———, April 1, 1904. The history was very confusing, embracing a number of symptoms which apparently were purely functional and also showing evidence of some sort of gastrointestinal disturbance which must have been rather severe. On the strength of the pain and weakness in the legs, noninvolvement of the sphincters, and weakness of the knee jerks, with abundant sugar in the urine, I concluded that the case was probably one of neuritis with a considerable hysterical element added. When I saw her the Achilles jerks were pretty good, but the knee jerks could be elicited only by reinforcement. The gait was rather characteristic of hysteria than of organic disease, and with some encouragement and some suggestive treatment she was able to trot up and down my office, holding to my hand—a thing that seemed absolutely impossible when she first came into the room."

Before coming to me Dr. Stella Stevens Bradford, of Montclair, New Jersey, examined her and went over the case most thoroughly. I quote from her history in full:¹

"Past History.—She was well as a child, except for 'malaria,' which was common in the city where she lived. She taught from the age of nineteen to that of twenty-one, when she was obliged to stop because of pain in her back and lumbar region, which was increased by standing. She suffered at that time also from insomnia. Eight years ago she had an attack of 'appendicitis' or 'oophoritis,' duration six weeks, with severe localized pain and high fever. She has been conscious of a tender spot in her right side ever since. Menses began at 16; regular; duration, two to five days; flow moderate, never profuse; accompanied by pain, which was never severe; is worse now than formerly, extending from the back around through the iliac and hypogastric regions, and is usually worse on the right side. Her nervous symptoms are worse during period. Leucorrhœal discharge is infrequent and hardly appreciable.

"Present History.—For three years she worked very hard as librarian, studying for examination at the same time, and paying no attention to sleep or exercise. Feeling 'run down' she took arsenic and strychnine for a long time. She felt weak and noticed that her legs trembled but did not stop work till forced to do so by an attack of diarrhœa, which was painless, but lasted several weeks and completely exhausted her strength. This was followed by pain, or a 'clutching sensation,' begin-

¹Medical Record, July 21, 1906.

ning in the back and radiating at first down the anterior aspect of the thighs. The pain later involved the whole of the lower extremities, especially the knees, which were held flexed. It was bilateral, but the patient always regarded the left leg as the worse. The weakness in both lower extremities was extreme, but the power of motion was never wholly lost. The patient remained in bed five months because of this pain and weakness, receiving some electrical treatment. For about two years, *i. e.*, from the time she stopped work till I saw her in June, 1905, there had been very little improvement. The pain was still almost constant, involving back, lumbar region, thighs, legs and ankles. It was superficial and burning or deep, dull and aching in character and was sometimes accompanied by sharp, stabbing sensations. It was often associated with a feeling of cold. It was worse after walking, when it was accompanied by stiffness and weakness; it often interfered with sleep, but was relieved by the recumbent position.

"Other symptoms were frequent urination, especially at night, not accompanied by pain or burning; pain in the back of the neck, and extreme exhaustion after any effort, as in reading or sewing or after talking with several people. She spoke often of 'waves of weakness' which passed over her. Her appetite was fair. She had no indigestion, and her bowels were regular, the stools, however, sometimes ribbonlike.

"Her mental condition was excellent, and her memory good, but she was inclined to be apprehensive, especially at night and in crowds, and to be discouraged about her condition. Her sleep was fair but broken by pain.

"Physical Examination.—Complexion, dark and said to be growing darker. Pale, with dark circles under eyes. Expression anxious, worn, hunted. Well nourished, flesh firm. Slightly enlarged thyroid, no exophthalmos. Tongue normal. Heart, slightly accentuated second aortic sound, otherwise normal. Pulse, medium in force and tension, slightly irregular in rhythm, varying in rate from 96 to 108. There was no thickening of the arteries. Lungs, negative, except for roughened breathing and increased voice sounds at apices. Spine, marked prominence of first two lumbar vertebrae; no tenderness on pressure of any kind, no rigidity, no disturbances of sensation on back. Lower extremities, white, especially the feet, with tendency to cyanotic mottling; always cold, though the examinations were made in June and July. No pulsation was ob-

tained in dorsalis pedis, nor posterior tibial artery of either side, though examinations were many times repeated, except once, and that once was after a two days' rest in bed. Then the pulsation, though obtainable, was weak. No atrophy. Abdomen, no rigidity. Liver normal in size. Both kidneys palpable, the right movable; neither tender. Tenderness, not constant, in region of appendix, on deep pressure. Pelvic examination, prepuce free from clitoris; transverse contractions in labia minora. No discharge. Cervix in normal horizontal plane, hard, directed somewhat anteriorly. Uterus, small, not infantile, retroverted, and sharply retroflexed. Ovaries large, tender, especially the right and prolapsed. Uterus movable but not completely replacable.

"Neurological Examination.—Cranial nerves negative. Patellar reflexes obtained, variable, the left usually the stronger; reinforcement usually but not always necessary. Achilles and plantar reflexes normal and equal. No loss of motor power. No disturbances of sensation. No ataxia. No disturbance of deep sensibility. No romberg. Gait unsteady, weak. Urine, twenty-four-hour amount, 50 to 70 ounces; pale amber, cloudy, abundant flocculent sediment, faintly acid, specific gravity 1010 to 1016, traces of albumin, no sugar. Microscopical examination: Very numerous pus cells, few epithelial cells, chiefly caudate. Repeated examinations gave the same results, and a catheterized specimen confirmed them. No tubercle bacilli found. I have not succeeded in getting the report of former urine examinations from the physicians, but the patient's own statement, accurate in other respects, was to the effect that there had been sugar, and also pus which was attributed to vaginal discharge. Blood, hemoglobin, 80 per cent.; red blood cells, 4,368,000; white blood cells, 9,000; polynuclears, 65 per cent.; small mononuclears, 5 per cent.; eosinophiles, 5 per cent."

It will be noted from the foregoing history that the salient points then were nervous exhaustion with pain and weakness of the lower extremities, and in the examination movable right kidney, pyuria, retroversion of the uterus and defective circulation of the lower extremities.

I operated this case on Thursday, September 7, 1905. I felt convinced that the sharp retroflexion of the uterus and the diseased appendix were responsible for no little trouble. I therefore first opened the abdomen and fastened the small, almost

infantile uterus in front by ventral fixation, the round ligaments being so small and atrophied that I felt it would not do to rely upon them to hold the organ in place. The appendix was hard, indurated and intimately adherent to the caecum. I therefore removed it in the usual way. The left kidney was explored and the stone readily felt within its pelvis. The kidney was, however, a mere sac, the pancreas being closely adherent to it, so that it was with difficulty that the pancreas was separated from it. After the abdomen was closed the kidney was exposed through the usual posterior incision. The spleen was enlarged and crowding hard down against the kidney. The kidney was closely adherent to the surrounding structures, there having been evidently some time a severe perinephric inflammation. In removing the kidney I injured the pancreas to such an extent that the shock was marked and the patient died on the third day with a temperature which during the first 24 hours was subnormal and which was but slightly above the normal at the time of her death. A post mortem showed beginning fat necrosis of the omentum as a result of the injury to the pancreas. The question naturally arises as to whether or not the pancreatic implication was not responsible for the presence of sugar in the urine before I saw the case.

The stone within the kidney was brownish-gray, irregular in shape, but with no sharp points, about $\frac{3}{4} \times \frac{3}{8}$ of an inch in its greatest diameters, and resembling volcanic tufa in surface and consistency. Dr. Bradford in concluding her article says:

"1.—The irritation in the kidney or pancreas or both caused the so-called referred pain of head—many years ago described by Dana under the term 'transferred pain'—the pain being superficial, burning and limited to the back, abdomen and upper thighs.

"2.—The irritation in the kidney or pancreas or both brought about reflexly a spasm of the vasomotor nerves, derived from the lumbar and upper sacral segments, causing contraction of the blood vessels of the lower extremities. The resulting ischemia in the nerve endings was the cause of the weakness."

The possibility that an ischemia, due to direct pressure on the large blood vessels, had caused indirect nerve changes was ruled out because there was no such pressure. Whether there was at any time an actual neuritis it is impossible to determine.

These three cases are presented as typical instances of "referred" or "reflex pain." Unfortunately the last patient died before it was possible to determine whether or not the removal of the lesions found would have afforded her permanent relief. I introduce it in connection with the first two cases because of the interesting way in which Dr. Bradford has recorded the case. The urine had been drawn separately from each ureter. The evidence obtained from the examination showed that the kidney lesion was limited to the left side.

I have noted many times that patients, even though under 35 years of age, the victims of cirrhotic ovaries, become large, heavy and neurasthenic. I do not believe that we have given sufficient attention to cirrhotic ovaries as a causative factor in the production of "reflex and referred pain."

816 *Rose Building, Cleveland.*

THE ANAESTHETIST.

BY

ARTHUR HARTLEY, M. D., PHILADELPHIA.

(Read before the Delaware County Homœopathic Medical Society, July 8, 1909.)

THE administration of anaesthetics is a specialized branch of surgery.

The anaesthetist should be a trained assistant to and with the surgeon.

He should be called upon to pass judgment upon the physical condition of the patient with regard to his, or her, ability to withstand the shock of the anaesthetic plus the operation.

He must have a general knowledge of surgery and special and intimate understanding of the general and local anaesthetics. His ability to recognize organic diseases in a patient is of first importance. From his knowledge he must determine which, if any anaesthetic, should be used, should a diseased condition be found.

For this reason his intimate understanding of the physiological and pathological action of drugs is of prime importance.

A patient is frequently greatly benefited after taking ether if carefully given, by this I mean just enough given to pro-

duce quiet and relaxation and being sure the patient is absorbing not a fraction of a per cent. more than is absolutely required.

Again, the anaesthetist is at times called upon to stimulate a patient by the use of drugs other than the anaesthetics. This is one of the cross-roads of anaesthesia and it is at this place the man of little or no experience knows not which way to turn. Here the expert is seen at his best. You will find he resorts with deftness and rapidity to a number of mechanical measures, each having its effect upon the vital centres of respiration or circulation. While doing this he will decide which drug to use and will have it prepared for hypodermic injection.

In most cases the hypodermic injection is not employed, due to the previous care in giving the anaesthetic and the early recognition of abnormal conditions in and about the patient, together with the rapidity with which such altered conditions have been overcome.

In the medical journals and in various medical meetings for the last year or two we have all noticed the crying appeals for better trained men to give anaesthetics. This demand has been brought about by the surgeon's finding patients have failed to do well during or after an operation where the surgical technique has been unquestionably perfect. Upon investigation it has been shown that had the anaesthetist been as well qualified as he should have been, the patient would not have developed any complications.

I make the bold statement that the anaesthetist in grave surgical operations assumes as grave a responsibility as the surgeon. In minor cases he assumes a far graver responsibility, for in such cases death is due to the anaesthetic not to the operation.

While one so trained in this specialty is not fully appreciated, the time is close at hand when the demand will be for the trained anaesthetist.

It is only fair to state that the greater the surgeon the more he will depend upon trained men to give the anaesthetic for him.

It behooves men in all sections to know and depend upon some one who has the qualifications herein mentioned.

And let me urge some of you to make a special study of this branch and qualify yourselves for the benefit of the surgeons and mankind.

One so trained is able to produce a quiet, pleasant narcosis in the patient with the minimum amount of time and anaesthetic, and insure a pleasant, quiet return to consciousness with little or no nausea or vomiting.

When we know the foregoing statements are true is it fair to allow a patient to be anaesthetized by one whose experience is limited, so limited he is not aware in many cases that the patient has gotten into a dangerous condition, because he is a person who takes too much for granted, trusting that everything will be all right anyway? Or again, another of little experience is over-cautious and mistakes the normal physiological action of the drug upon the patient for dangerous or pathological conditions.

We all know that when we decide a case to be surgical the man of known experience is called upon, not the novice. Is it any more fair in one case than in the other?

Patients to-day dread the anaesthetic far more than the operation and will tell of some experience of a friend or relative who has died or who had a very serious time under the anaesthetic. Much of this fear will be overcome if certain definite and known ideas are put into practice at the time of administration of the anaesthetic.

Experiences of a critical nature may arise at a moment's notice, I should say at a few seconds' notice. One such experience will not be amiss if brought to your attention.

A child of three years, a boy, the son of a doctor, prepared for anaesthesia. Chloroform used.

Esmarck inhaler held an inch and a half from the face and the drop method employed. After three minutes of administration, a drachm was used. The patient without change of color or loss of reflexes, with no unusually long or altered breath sounds stopped breathing. The pulse remained good for some time. Artificial respiration by chest compression was instituted with no relief. The patient's feet were elevated, head lowered, the tongue drawn out, the sphincter ano dilated with no result. The face had blanched by this time and the reflexes were lost and the pupils were dilated and fixed and the cornea was insensitive. The patient was in a grave state of overdose, resulting in an acute dilatation of the heart. Leonard Hill has said to stand the patient upon his feet in acute dilatation of the heart from chloroform. This condition being known as chloroform syncope. The patient was accord-

ingly reversed, standing him upon his feet, thus aiding in the emptying of the overdistended right heart and the patient sighed. The feet were again elevated and head lowered, but not until he was again elevated head up and standing did he breathe. At this time the anaesthetist inserted his fingers deep beneath the ribs on the left side of the patient's abdomen and attempted to stimulate active contractions of the heart. Just prior to this the radial pulse had been lost and cardiac sounds were lost, but after lowering the patient from the upright position and using deep massage under the diaphragm near the heart the patient began to breathe, and pulsation returned. The patient was resuscitated and the operation, which was only circumcision, was begun and finished with little more of the chloroform being necessary until toward the end of the operation.

The patient would probably have died had he not have been placed in the upright position. And had the condition been one of cerebral anaemia the upright position would possibly have been fatal.

This shows that only an accurate knowledge of the condition saved the life of this patient.

Let me urge in conclusion that you employ only the trained anaesthetist and that you encourage some man in your community to thus qualify himself.

SULPHUR.

(Continued.)

BY

EDUARDO FORNIAS, M. D., PHILADELPHIA. .

SECRETION IN THE RESPIRATORY TRACT.—The *mucosa of the larynx* being a continuation of that of the pharynx, it is like this composed of *epithelium*, *tunica propria*, and *sub-mucosa*, the latter connecting the mucosa with the underlying parts and containing *branched tubular mucous glands*, from 0.2 to 1 mm. in size. The *larynx* is also richly supplied with blood vessels and nerves. The disposition of this organ is such that it becomes both respiratory and vocal in function. As to *breathing* it merely serves as a passage, but its rôle in *phonation* is of great importance.

The *trachea* possesses a structure like that of the *larynx*, excepting only that the elastic fibres, pursuing a longitudinal direction, predominate. The *mucosa* is ciliated, and the net-work lies immediately beneath the epithelium and above the glands. *Mucous glands* are found in the posterior wall, and are distinguished by their size (2 mm.). This elastic tube is situated vertically between the *larynx* and the *bronchi*, so that the latter is but the bifurcation of the trachea.

The *bronchi*, *lungs* and *pleura* should be studied together in this division of my work. The *minute structure of the bronchi* in the largest branches does not differ from that of the *trachea*. The *mucous membrane* is thrown into longitudinal folds and consists of a stratified ciliated epithelium. Branched tubular *mucous glands* occur as far as the cartilages extend; they are situated outside of the muscular layer, are numerous, and do not disappear until at the beginning of the respiratory bronchioles.

The *lungs* have been correctly regarded as *compound alveolar glands*, in which, as in all glands, excretory and secretory (in this case respiratory) portions may be distinguished. The entire *respiratory division* is separated by areolar tissue into lobules, and the *excretory division* comprises the secreting cells of the laryngeal, trachial and bronchial territories. The lungs are constantly secreting $C O^2$, water vapor and several volatile principles. It is only as an *economical principle* that nature seems to employ this organ, not only for the oxygenation of the blood, but for gaseous depuration. There is no doubt that from the point of view of *excretion*, the *lungs* have in every respect the structure of a gland. They develop exactly like a gland, under the form of an epithelial bud, first plain, then alveolar and gradually racemose. Even the cellules of the *pulmonary alveoli*, seem to play an active part in the liberation of $C O^2$, and far from being inert elements, they very probably decompose the bicarbonates of the blood and expel the liberated $C O^2$ gas, thus acting as true glandular cells.

It is singular how analogous is the arrangement of the *lungs* to that of the *kidneys*, as *organs of excretion*. The capillary net-work of the glomeruli represents the vascular tufts of the pulmonary lobule. Both are separated by the thin epithelium of a cavity (ampulla of Bowman), pulmonary alveoli where the excreted products empty, urine and pulmonary exhalation, and from where they pass to a series of converging tubules

(*bronchi of various calibres, or urinary tubules.*) The products of these organs are also very similar. While the *kidneys* eliminate in solution solid principles from the disintegration of tissue, but incompletely burnt, the *lungs expel*, in the gaseous form, $C O^2$ and water ($H^2 O$), ultimate products of complete combustion. This analogy has not been found recently, for Blainville had already compared the *breath or respired air* (gaseous excrement) with the *urine* (liquid excrement)—“*Viault and Jolyet.*”

In connection with the *pulmonary excretion*, it is profitable to study the *breath* or exhalation which when foul is a symptom observed in so many local and denutritive processes as well as in *bromism, mercurialism* and *alcoholism*. While *in the normal state the breath is sweet and odorless*, during *inflammatory affections of the lungs, bronchi, pharynx, mouth, teeth and nose*, and even in general diseases, it becomes simply heavy, or offensive. In general the *fetid odor* is only felt by the patient, unless the sense of smell is lost by *advanced post-nasal lesions, principally in Osæna*, when the patient often wonders why he is shunned by other people. But nowhere is the foul *breath* so intense and unbearable as in *gangrene of the lungs, scurvy, or cancer of the mouth or gullet*. We meet however in many cases of *diphtheria, dilated stomach, acute and chronic gastritis, follicular tonsillitis, glossitis* and *salivation*, well accentuated cases of *foul breath*. Highly offensive breath is also observed in *opium* and *phosphorous poisoning*, as well as in *caries of the jaw, nose, or teeth, pyorrhæa alveolaris, stomatitis, typhus, and uræmia*.

Many volatil principles, however, are emitted with the breath, some from *alcohol* and *tobacco*, and others from *resinous substances*, or from garlic and onions. The *smell of bitter-almond* in the breath is always an indication of *Hydrocyanic-acid-poisoning*.

It is not necessary to speak here, in detail, of the *temperature* and *chemical composition of the breath*. It suffices to say that, in general, its temperature is found *raised in intense fevers*, and lowered and even *cold in cholera*, and different states of *algidity*, while the *chemical composition* is found altered by various, numerous physiological and pathological processes of diverse origin.

Of course, I must not forget to state that the various odors presented by the *breath*, the knowledge of which is so impor-

tant in *medical semeiology*, should be considered not so much as *breath proper*, but rather as a mixture with those volatile products derived from the *bronchi, pharynx, mouth, nasal fossæ*, etc.; where all kind of disease creates products which undergo fermentation, finally leading to putrefaction.

Under my scheme I shall chiefly refer to *catarrhal inflammations with abundant, scanty or arrested secretion*. Of course, in some *infectious diseases* we are also apt to observe a *dry or a moist cough, with scanty or profuse expectoration*; characterized by *mucous, purulent, serous, fibrinous sputa*. Sometimes the *sputa* is constituted by variable products (*melanosis, concretions, etc.*), or by mixed pathological products (*mucus and pus, or blood and pus*).

We find these secretory products, *if mucous*, in catarrhal conditions of the pharynx, larynx and bronchi;—if *purulent* in pulmonary phthisis (second period);—if *serous* in emphysema;—if *viscid* in asthma (end of the attack); if *fibrinous*, in typical acute pneumonia; and if bloody (which should be studied under *hemoptysis*) they are often *supplementary*, but more frequently *symptomatic*. If *symptomatic*, they arise either from *affections of the lungs and air-passages*, or from *disease of the circulatory apparatus*, to be studied in the corresponding section of this analysis. It is, however, most frequently noticed in *tuberculosis of the lungs*.

Then again the *sputa* may be *frothy*, as in acute bronchitis; in watery, abundant bronchorrhœa; in emphysema, in gangrene of the lung (upper layer of the sputa), œdema of the lungs (watery), and acute lobular pneumonia;—*nummular*; as in bronchorrhœa, bronchiectasis, cirrhosis of the lung, pneumonia, phthisical cavity (sinking in water implies long retention);—and *blood-streaked*, principally in bronchitis, in pulmonary apoplexy, acute lobular pneumonia, and advanced phthisis. Some *sputa* are distinguished by their color: *gangrenous sputa* are brown or dark green, of very offensive odor; *red currant jelly* is seen in cancer of the lung; *greenish-yellow* in actinomycosis, hepatic abscess and icteric pneumonia; like *prune-juice* in cancer of the lung, gangrene of the lung, septic pneumonia and sarcoma of the lung; *like rust*, in acute pneumonia, pyæmia, acute tuberculosis, and distomiasis; like *boiled sago*, in chronic laryngitis and laryngeal catarrh (it appears as a nearly globular mass resembling a grain of sago,

often black; with *black specks*, in gangrene of the lung, phthisis, or inhalation of coal-dust, or smoke).

We should also bear in mind that it is the presence of *pus* that gives the *sputa* a *yellow or yellow-greenish* cast. We may likewise observe a *red, brown or reddish-yellow* coloration, due to pronounced transformation of the coloring matter of the blood (*hemoptysis, pulmonary infarctus, pneumonia*). In general, we may say that the *coloration of the sputa* varies with the in-contained products: The *coloration* may be perfectly *red* (blood); or a *yellow greenish tint* (pus); *red-brown* (blood altered in pulmonary infarctus); *amber color*, (pneumonia); *black* (pneumomycosis).

Other clinicians state that the *yellow-ochre color* indicates the presence of a large quantity of hematoidine; in cases of pulmonary abscess for instance. This *coloration* is sometimes derived from the coloring matter of the bile, or from an opening in the lung of a hepatic abscess, or still from an echinococcal focus of the liver degenerated into an abscess. The *yellow of egg or greenish-yellow cast* is sometimes produced by the action of bacteria while the sputa remains for a long time in the spittoon, and the addition of traces of such a sputum to other products creates the same coloration. A *green tint* may be due to the presence of coloring matter from the liver, for instance the biliverdin in pneumonia complicated with icterus. In caseous pneumonia we sometimes observe sputa of a *meadow-green color*. Moreover, *sputa of a blue color* are observed in workers handling certain coloring products. *Black sputa*, as stated above, are due to habitual inhalation of coal-dust or soot; or are seen in workers of iron. In this last class of individuals we find sometimes sputa of an *ochre or red color*.

It is not in the scope of this paper to describe the morphological elements (*fibrine, Curschmann's spirals, fragments of lung tissue*, etc.), and the microscopical examination of the sputa, where so many *cocci* and *bacilli* are to be found.

More important to us here is the consideration of the amount of *expectoration* in the 24 hours, and we should bear in mind that in many cases the intensity of the pathological process may be estimated by the amount of sputum. The quantity varies according to the cause. *Profuse expectoration* is chiefly observed in *bronchorrhea, purulent bronchitis, in large tubercular or bronchiectasic caverns, pulmonary*

œdema, opening of abscess in the bronchi, and perforating empyema. Any great quantity of secretion is always important for diagnostic purposes.

No less important is the *scanty expectoration*, so frequently observed at the *onset of acute bronchitis* or *acute pneumonia*, in *spasmodic asthma*, and *acute pleurisy*, where it may be absent. The *sputa* is also scanty in *cancer of the lung*, *diphtheritic laryngitis* (onset), *hay-fever*, *chronic laryngitis*, and *acute miliary tuberculosis*.

So we see, that facing the *qualitative secretory changes*, we have others of a *quantitative character*: The most common expressions of *respiratory troubles*, are: *Dryness and roughness, with or without pain or cough, or profuse expectoration, with or without retention, accumulation, rattling and oppression*. The *cough of the affections of the air passages*, if dry and painful, is due to lack of secretion; while if moist or loose the secretory function is increased.

In the *pathogenesis* of SULPHUR are recorded, both *qualitative and quantitative alterations of the excretions*:

The leading symptoms of this remedy referring to air-passages are:

(1) *Dryness of the larynx with rough, hoarse voice and much mucus in the chest.*

(2) *Nightly suffocative attacks from dryness; hence a desire to have more air; wants doors and windows open.*

(3) *Dry choking cough with pain and stitches in the chest or head, or with much rattling of mucus.*

(4) *Cough excited by tickling in the larynx; from dryness, or from accumulation of mucus in the bronchi.*

(5) *Dry cough, mostly in the evening or at night, when lying down.*

(6) *Tightness of the chest and frequent paroxysms of suffocation, chiefly at night.*

(7) *Expectoration of greenish lumps of sweetish taste; of bloody pus, of dark blood, of yellow mucus, or milky white, watery mucus; usually sourish, sometimes putrid, flat, sweetish, or salty taste.*

(8) *Profuse expectoration during the day, with dry cough at night, or dry cough at night and during the day, followed by abundant expectoration of thick, white, yellowish, or greenish mucus, sometimes of foul odor.*

(9) *Stagnation of mucositics in the bronchi, or profuse ex-*

pectoration; or distressing expectoration of viscid, white, mucus, and sometimes bloody sputa.

(10) Loose cough with mucus râles, or dry with hoarseness and burning in the throat.

The cough of SULPHUR, however, is usually dry, distressing, with a sensation of inhaled dust or smoke, and difficult breathing. But the cough sometimes is followed by a profuse expectoration, which relieves momentarily, and is composed of a purulent or greenish sputa of sweetish taste, emitting a foul odor. The final expectoration of viscid, amber color mucus, mixed with saliva, preeminently indicates SULPHUR in asthmatic attacks. And the purulent fetid sputa, with dryness and burning of the mucous surfaces, are symptoms often present in the advanced period of phthisis, with advanced lesions. (*Phthisis ulcerosa*).

The student should not forget that the sputum is not only composed of secreted products from the trachea and bronchi, and of pus formed in the respiratory tract, but of pharyngeal, nasal, and oral secretions, as well of saliva, and not unfrequently of alimentary particles. Moreover, the collection of secretions, or of pus, gives rise to adventitious respiratory sounds, which are always signs of a diseased condition of the mucous membranes of the lung. These sounds are called râles and are divided into:

- (1) Numerous or rare.
- (2) Dry or moist.
- (3) Crepitant (bulbous).
- (4) Consonant or not.

Dry râles are caused by the passage of the inspired air through a narrowed bronchus or one covered with a viscid tenacious secretion. The character of this sound is *sonorous* or *sibilant*, and is pathognomonic of *bronchitis*.

Moist râles appear when the secretions are very fluid. In these cases the collection of secreted product conducts the inspired air; or these râles are heard when bubbles containing air are ruptured, or when closed alveoli or bronchioles are forced open. They are divided in *large, middle* or *small bullæ*. The first occur in the large bronchi, the last in the small bronchi. They may be plentiful or scattered, fine or coarse, ringing or not, metallic or not.

Crepitant râles is a variety composed of small bubbles. These râles take their origin in the forcing open of previously

closed alveoli, and are a subdivision of fine râles. They are chiefly heard during inspiration, and particularly during the *congestive period of pneumonia*; and they are likewise important signs of the period of resolution of the same disease. They are also observed in *pulmonary œdema*. In patients and convalescents who have remained for a long time in bed, one can perceive these sounds during a profound inspiration, in the posterior and inferior part of the thorax. They may be imitated by rubbing the hair or ear-lobe between the fingers. *Râles of a metallic character*, of high musical sound are observed at the *level of large excavations* which give a tingling note on percussion, and amphoric breathing on auscultation.

Consonant râles are heard under the same conditions as the bronchial breathing, that is to say at the level of the parenchyma of the lung deprived of air and at the level of a cavern. *Râles distinctly consonant*, sounding near the ear, may render possible the diagnosis of an induration, where the respiratory sound is undetermined, for instance, at the level of the broncho-pneumonic foci.

As stated above, the *pleura* is included in this analytic study. We know, or at least should know, that the surface of the lung is covered by the *visceral pleura*, and that this is composed of connective tissue, numerous fine elastic fibres, and that on its free surface is clothed with a simple stratum of *flat polygonal epithelial* (endothelial) *cells*. The *parietal pleura* has the same structure but contains fewer elastic fibres. This is the chief anatomical composition of this double serous tunic.

And now, I pass to consider the *pleural exudates*, which are of great secretory importance, for, since the investigations of Heidenhain, it is *a priori* to be expected that an abnormally increased secretory activity of the endothelium is a cause of *transudates*. The *pleural fluid* occurs under physiological conditions in such small quantities that no chemical analysis has been made. Under pathological conditions, however, this fluid may show very variable properties. In certain cases it is nearly *serous*, in others again *sero-fibrinous*, and in others similar to *pus*, etc. There is also a corresponding variation in the specific gravity and the properties in general. So after a pleuritic effusion is diagnosticated, the nature of the exudate must be determined, whether it is *serous* (simple pleurisy), *purulent* (empyema), or *hemorrhagic* (usually dependent upon a malignant new growth).

Although the patient's condition of strength, the character of the fever, the pulse, and the respiration, can lead us to a differential diagnosis, yet in all cases of *pleural effusion*, an aseptic *exploratory puncture* with a hypodermic syringe should never be neglected, to determine the true character of the *effusion*, which if *purulent*, may require a bacteriological examination of the bacteria contained in the pus. *Pneumococci* in the pus denote *meta-pneumonia*, tubercle bacilli, *tubercular empyema*. *Streptococci* and *staphylococci* give no certain evidence as to the origin of the disease; in tubercular disease of the lungs, empyema dependent upon streptococci and staphylococci may arise. *Bacilli of putrefaction* are found in empyema, in gangrene of the lung, or in embolic infarcts of putrid purulent processes, especially in puerperal infections. *The continued absence of bacteria in the pus speaks for tuberculosis.* (Klemperer).

On the other hand, *pleuritic inflammation* without effusion (*pleuritis sicca*) give rise to *friction sounds*, which are equally loud on inspiration and expiration. They are produced when the surfaces of both pleura, smooth and lubricated in the normal state, become rugous by the deposit of fibrine, by the dissemination of tubercles, or, finally, by abnormal dryness. Both, the visceral and parietal, pleura rub each other then at each respiration and produce a gritting sound with more or less stitching pain. But, when effusion takes place (*pleuritis exsudativa*), the two pleura separate and a cessation of the pain and sound follows. Not only the *pleuritic exudate*, but adhesions between the two layers of the pleura render friction impossible. This friction is ordinarily by jerks, and varies from a simple grazing to a more or less strong rubbing. It is connected with respiration and ceases immediately with it. It differs from *dry râles* in that it is not so prolonged or influenced by cough; it becomes accentuated by pressure on the intercostal space; and finally it seems more superficial and near to the ear. It is more distinctly heard by the stethoscope than by direct auscultation. A deep inspiration makes it more audible, and it is often felt by the hand applied on the thorax.

No physician can afford to ignore that the presence of an *exudate* in the pleura produces a bulge or vaulting of the affected side, as well as a diminution of its mobility. We find at its level, an absolute dulness, an abatement of the respiratory murmur and of the thoracic vibration.

Above the effusion, on the level of the compressed lung, one perceives a tympanitic sound with the modified tone of Wint-rich, a bronchial souffle, and egophony. When the pleura is free from *adhesions* the exudate collects, first backwards, in the most dependent parts, and from there it travels forward and upward. If the exudate is produced while the patient lies down, the upper limit of dulness is represented by an oblique line running from above downward, and from behind forward; but if it gathers while he stands, the superior limit will be distinctly horizontal. On the other hand, the superior limit of an exudation, in the way of reabsorption, is often a curve whose apex is found on the side of the thorax (line of Damoiseau or Elli).

The limit of dulness in *inflammatory exudates* varies little or nothing by a *change of position* of the patient, for most frequently the effusion is incased in a capsule formed by adhesion of the pleural layers. In *hydrothorax*, where the effusion is frequently bilateral, but does not reach on both sides the same level, a change of position does not alter the limit of the fluid, but after 15 or 30 minutes' time. But if a mixture of air and fluid (*pyo and sero-pneumothorax*), accumulates in the pleural cavity, the superior level of the fluid becomes forthwith horizontal. It then follows that, in the *vertical position*, there is dulness in the antero-inferior parts of the thoracic half, due to the presence of the subjacent fluid; but in the *recumbent posture*, on the contrary, the fluid changes forward and a strong sonority replaces the dulness forward. Under the large *pleural exudates* the sound is high and tympanitic, while beneath the small effusions it is often strong and grave.

Tympanitic resonance is distinguished from a non-tympanitic by the more regular sonorous vibrations which bring it near to a *musical sound*. Its pitch is readily appreciated. It is produced by *percussion of cavities filled with air*, for instance, the larynx, trachæa, stomach, and the intestines when containing gases. In the normal state the *percussion of the lungs* does not give any *tympanitic resonance*, except on the inferior part of the left lung, because, at this level, one percusses through a thin layer of the lung that part of the stomach situated in the *diaphragmatic cavity*.

Then we should not forget that the accumulation of a large quantity of air or fluid in the pleural cavity rams or compresses the mediastinum, diaphragm, and other neighboring organs.

and that the *displacement of the heart is less marked* when the effusion is left-sided. Even the liver and spleen can be displaced by extensive exudations.

The recovery from *pleurisy* is accomplished by reabsorption of the effused fluid, by the formation of adhesions between the two layers of the pleura, and by a consecutive cicatricial retraction of the tissues of new formation.

By repeated verifications, I am in position to assert that, as a therapeutic agent, to aid these recuperative processes, few drugs can take the place of SULPHUR.

Unfortunately, however, especially for those who do not treat their cases symptomatically, all cases of *pleurisy* are not loyal to their type, and sometimes we come in contact with marked, aberrant cases in which a correct diagnosis is almost impossible. This is particularly the case with *mediastinal pleurisy*, a form of the disease where the apex of the heart is found deviated from its normal position.

Dr. Lafforgue, of France (*Le Bulletin Medical*) asserts, and with much reason, that, when a case of *mediastinal pleurisy* presents the typical syndrome, the localization of the trouble is not difficult, but he insists that even in favorable cases of the kind, it is necessary to determine by a minute semeiological analysis the nature of this localization, and to consider and eliminate by turns all the diverse hypotheses on the subject. We should in such cases, he says, weigh well the possibility of *exudations, ganglionic hypertrophy, neoplasms, aneurysm*, etc. "The difficulty is greater still when, instead of a complete picture, the *pleuritic inflammation* does not borrow from the mediastinal syndrome but a few distinct symptoms, whose insignificant grouping could hardly give us a clue to a correct diagnosis."

Such is the result at the onset of the disease, when this only becomes manifest by a few general signs and a few vague pulmonary symptoms; and the worst of all, that the incertitude persists sometimes during the whole course of its evolution.

According to Vanverts and Dancourt (*Les pleuresies purulentes enkystées*).—(1) In cases of *latent pleurisy*: The effusion is only found out at the autopsy, and nothing during life could have made us surmise its existence. Such was also the opinion of Laënnec and of Cruveilhier; and Chomel in his Dictionary of Medicine, expresses the belief that these varieties of *mediastinal pleurisy* are of impossible diagnosis, and

give always as a revealing index the *deep retro-sternal pain*, to which we give in our days only a relative value. (2) In cases of *abortive or frustrated pleurisies*, of course, the clinical picture is incomplete. Certain symptoms are absent or are not marked, probably due to the fact that the localization of the lesion is limited to small area of the *mediastinal pleura*, or to the fact that the effusion is insignificant.

By the above one can appreciate how variable and sometimes confusing are the *clinical tableaux* worked out by these *abortive pleurisies*, and how capable is the *symptomatic polymorphism* of misleading us and impairing our *diagnosis*. The above statements plainly demonstrate also the semeiological value of a symptom which, like the *deviation of the heart's apex*, remains isolated for so long a time.

Let the student also bear in mind that a *latent pleurisy* may be the starting point of *pulmonary phthisis*, and that the first stage of this disease may give evidence of no physical signs. The suspicion of *tuberculosis* is aroused by various uncertain symptoms: A *hacking cough*, *little expectoration*, *headache*, *effort-fatigue*, *loss of appetite and flesh*, *gastric disturbances* and *gradual sinking of the forces*. Only the presence of the *tubercle bacilli in the sputum* can make the diagnosis certain. As our friends, the allopaths, will never be contented, at least this generation, with the small doses, we have splendid opportunities to observe the elevation of the temperature following the injections of Koch's and other *tuberculines*, which is counted to-day as one of the infallible signs of *established tuberculosis*.

(To be continued.)

EARLY RISING AFTER LAPAROTOMIES.—C. Hartog in the *Berliner klin. Wochenschrift*, 1909, No. 11, who, for the last two years has practiced early rising after laparotomy in the abundant material of the Landau clinic, again controverts the theoretic objections to the procedure. Hemorrhage sequent to laparotomy is due almost entirely to poor technic, nor is there danger of the wound breaking open, nor of hernia if suturing and suture material, the application of plaster-strips or abdominal bandages be correct. The danger of embolus or thrombus is slight, whilst the early rising avoids pulmonary complication; the use of the catheter is rarely necessary; and decubitus becomes obsolete. Reports are given from various clinics of 1,200 cases. The matter of getting out of bed is left chiefly to the wish of the patient (2 to 7 days). Weak or senile patients are urged to rise within a reasonable time, that the always threatening pulmonary and vesical troubles may be avoided.

EDITORIAL

TUBERCULOSIS IN INFANCY AND CHILDHOOD.

THAT tuberculosis in children and even in very young children is much more common than was formerly supposed, has been abundantly proven by recent investigations in the autopsy room and by the newer and more sensitive diagnostic tests now used by clinicians.

The statistics of Albrecht, of Vienna, are generally accepted as being accurate and cover a sufficiently large number of cases to permit us to draw deductions from them. In 3,213 autopsies in children under twelve years of age he found evidences of tuberculosis in 1,060, or 33 per cent. Under one year there were 1,300 autopsies with 191 cases of tuberculosis, or 16.6 per cent. The youngest was a two weeks old baby.

Between the first and sixth year there were 1,558 autopsies with 691 cases of tuberculosis, or 44.3 per cent. Between the sixth and twelfth year there were 178, or 50.1 per cent. of 355 autopsies. Comby, of Paris, has just published his series of 1,447 autopsies in children, among whom tuberculosis was found in 536, or 36 per cent. Under one year there were 685 autopsies with 112, or 16 per cent. tuberculous. There were 327 autopsies between the ages of one and two, with 141 cases of tuberculosis, or 43 per cent. Over two years of age there were 435 autopsies with 283, or 65 per cent. tuberculous.

One cannot read these statistics without inquiring as to the source of infection in such a large percentage of children. Prenatal infection is almost universally conceded to be extremely rare and is a negligible factor. Most authorities believe that children of tuberculosis parents inherit a *predisposition* to the disease and on this account become readily infected. Personally we cannot agree with the orthodox medical view of this matter and fully concur with Comby in his belief that neither tuberculosis nor its disposition is hereditary. Constant contact with tuberculous parents naturally increases the liability of such children to infection, but there is no evidence that conclusively demonstrates the presence of an hereditary tendency to infection.

There has been considerable dispute of late as to whether infection in childhood takes place more commonly through the respiratory or through the alimentary tract. Von Behring, Ravenal and others have argued strongly for the alimentary tract as being the source of infection and consider milk to be the usual vehicle of the bacilli. It is, of course, well known that primary intestinal tuberculosis, even in childhood, is a comparatively rare disease, but Von Behring meets this objection by claiming that the tubercle bacilli may pass through the intestinal mucosa and the mesenteric glands and reach the lungs without leaving any trace in the intestine. This hypothesis, we feel, is so complicated and so difficult to either prove or disprove that we prefer to adhere to the more simple and more probable view, namely, that infection usually occurs through the respiratory tract by inhalation. The investigations independently conducted by Holt in America, and by Albrecht in Vienna, in which both found involvement of the bronchial lymph nodes and lungs in 99 per cent. of tuberculous cases at autopsy would appear to strongly confirm the respiratory theory.

The diagnosis of mild forms of tuberculosis in young children is by no means an easy problem. The physical signs, so constant in adults, are likely to be absent or misleading to the inexperienced observer. The history of the child is very important as it may be assumed that any child who has been in daily contact for any length of time with an adult suffering from an active pulmonary tuberculosis has acquired some form of tubercular infection. It matters not whether the tuberculous individual is related to the child or not, intimate personal association being the essential element in spreading the infection.

The newer methods of using tuberculin as a diagnostic agent are of great assistance in arriving at a correct diagnosis in children. Probably the most suitable of these for general work, owing to its freedom from danger as well as its reliability, is the Von Pirquet cutaneous test. It is carried out by placing a drop of "old tuberculin" on the skin and scarifying through it as in vaccination against small-pox. In positive cases a red papule surrounded by a small zone of hyperemia appears in from twenty-four to seventy-two hours. The ophthalmic test is not suitable for routine use on account of the danger of injuring the eye.

It would seem that the majority of individuals who die of tuberculosis during adolescence acquire the disease during the early years of life. Prophylaxis therefore must begin in infancy if it is to be effective. Among the intelligent classes it is comparatively easy for the physician to protect infants from infection by tuberculous adults if he impresses upon the family the importance of observing strict prophylactic measures. Even among the poorer classes prophylactic efforts in this direction are well worth a trial.

HOMŒOPATHIC PHARMACIES AND QUACKERY.

THE Homœopathic Medical Society of Philadelphia County recently referred to its Committee on Medical Abuses the action of a certain homœopathic pharmacist. It seems that this concern in order to increase what is known as its retail trade has been in the habit of sending out letters to the laity stating that one of the difficulties in making a homœopathic prescription lay in the selection of the proper remedy. Said concern had in a measure overcome this difficulty by the invention of combination tablets, the components of which had been so selected as to secure good results, for if one of the remedies failed, the other might reasonably be expected to act. Accompanying the letter was a list of prescriptions for a number of diseases, notable among which was diphtheria.

Now, there can be no question concerning the right of a pharmacist to increase his retail business, but we hold as does the County Society that it should be done with due regard to the safety of the public. To advise even inferentially the home treatment of such a dangerous disease as diphtheria is a very serious matter indeed, and should meet with the severest condemnation. We trust that this criticism and the action of the Society will stop this unfortunate business once and for all time to come.

It may be said in defence that the pharmacy in question has the right to look out for retail trade owing to the greatly increased expenditures attendant upon the transaction of business. This is true in a sense; but homœopathic pharmacists have thus far been so intimately associated with our physicians that we expect from them a higher standard of ethical con-

duct than obtains among corner drug stores the country over.

There is a legitimate way, in our opinion, by means of which the retail business can be secured, with a minimum of harm. While admitting the practice of home prescribing as an evil, we all know that the practice cannot be stopped. People will purchase nostrums if they cannot obtain anything that appeals to them as more reasonable. A few years ago, a prominent New England physician, in conversation with us, advocated very strongly the publication of reliable and sensible works on domestic medicine. His argument was that the works of Hering, Laurie and McClatchey and Johnson had done much to popularize homœopathy among the people. He contended that if a new book from a 20th century standpoint was published, it would prove to be of inestimable value. Of course the domestic handbook is open to objections, but if written by the proper physician, it is capable of doing considerable good, and much less harm than the empirical and dangerous self-drugging to which the public is becoming rapidly habituated.

THE TREATMENT OF PROSTATIC HYPERTROPHY BY INJECTION OF FOREIGN BLOOD.—Following out the idea of Bier of injection of foreign (animal) blood in human tissues, with sequent gradual shrinking, Dr. O. Jungling, in hospital work, has endeavored to influence prostatic hypertrophy by injections of defibrinated hogs' or lambs' blood. Under control of a finger in the rectum, the injections were made perineally, a Pravag syringe being employed. In each lobe about $2\frac{1}{2}$ cc. were placed, and an equal quantity in the periprostatic tissue. To avoid injury of the urethra, the author advises that the operator stand to one side of the median line. It has been thoroughly verified that with proper aseptic execution, the procedure is entirely harmless; in no one of the 21 patients treated by this method, did any phenomena indicating danger appear; in a few there was some rise of temperature. Though judgment of the effects of injection upon prostatic hypertrophy is obtained with difficulty since palpation of the prostate and cystoscopic are the only investigative procedures possible, even these affording no definite and certain knowledge as to the size of the gland. The author, in view of the clinical course observed in the injected cases, is inclined to the opinion that the method favorably influences the condition. Though unable to form a definite opinion as to the mode of action of these injections, the author has verified in a number of cases that the urine was more forcibly ejected, the frequency of micturition lessened, whilst in acute cases the cystitis improved without necessitating local treatment. The favorable influence exerted upon tenesmus and retention of urine in acute cases was particularly noticeable.—*Deutsche Zeitschrift für Chirurgie*, Bd. 95, H. 6.

GLEANINGS

NOISELESS PERCUSSION.—Dr. Max Herz in the *Zentralblatt für innere Medizin*, 1909, No. I, says that percussion in view of recent orthodiagnostic results, has entered into a new stadium, very light or delicate percussion being now the dominating procedure. Herz has endeavored to rid percussion of the perception of sound in order to value correctly the sensation obtained by touch alone. Using the Barany apparatus, he found such an increase of sound during percussion that the component elements of sound were quite obscured or entirely indistinguishable. Hence, he percussed noiselessly or palpated first the liver, then the cardiac boundaries, obtaining results which agreed with those of orthodiagraphy and the method of percussion hitherto employed.

The newer delicate methods are differentiated from the older ones used, chiefly by the fact that they do not strive to educe various sensory phenomena but rather eliminate as much as possible this disturbing acoustic element so that the tactile sensations, hitherto disregarded, because more perceptible.

SCORBUTIC ETIOLOGY.—In the *Russische Zeitschrift für Haut u. Geschlechtskrankheiten*, December, 1908, Dr. J. Halpern, as chief of a hospital in Russo-Japanese war, had the opportunity of observing a number of cases of scurvy in which the angio-neurotic symptoms, such as erythematous maculæ, nodes, etc., were invariably accompanied by more or less recent traces of activity on the part of pediculi vestimenti or body lice. His attention having called to this phenomenon, he began to investigate more closely the relation betwixt the scorbutic signs present and the lesions due to the parasite mentioned. It happened that in a considerable number of cases, not a few patients were found in which neither anamnesis nor objective investigation discovered any marked staphylogenic affection of the skin, so that it was entirely unwarranted in such instances to attribute the development of scorbutus to the debilitating action of such causes or to the influence of a morbid or predisposed constitutional idiosyncrasy, nor could the nutritional condition present or any other environmental factor elucidate the development of the scurvy. Thus there was nothing else of etiologic value than the relationship between the scurvy and the pediculi, rendered still more probable by the known fact that the toxic action emanating from the parasites is able, by reason of its effect upon the innervation of blood vessels, to evolve dermal pigmentation and erythematous and other angioneurotic phenomena.

THE DUBIOUS SIDE OF THE WASSERMANN REACTION IN LUES.—Prof. J. Selenew, the celebrated Charkow dermatologist, denies (*Russische Zeitschrift für Haut und Geschlechtskrankheiten*, Novemberheft, 1908), the specificity of the Wassermann reaction, and is of the opinion that the

theoretic bacteriologic foundation upon which it is built is in no wise adequate to a consideration of the serum reaction as specific in syphilis. In diagnosing general lues, the clinical symptoms of the disease are still of pre-eminent significance; in doubtful cases it happens that the sero-reaction is rarely positive. In regard to the infectivity of lues, the reaction offers nothing definite; investigation gives also a positive reaction in patients who, though formerly syphilitic, have for years manifested no sign of the disease; such patients should not be considered leptic, for though harboring anti-bodies, these develop no morbid phenomena. If other symptoms are absent, a positive reaction does not serve as an indication for beginning leptic treatment, nor does a negative reaction certify the cure of the disease. As for permission to marry, this should not depend upon the sero-reaction. We find, therefore, that the Wassermann reaction gives no adequate answer to a long list of weighty queries.

HEART HYPERTROPHY AND NEPHRITIS.—By Dr. Jores (*Verhandl. deutsch. path. Gesellsch.*, 1908, xii., 187). Heart hypertrophy in nephritis seems always to offer problems that defy the pathologist, in spite of the abundant material that is always at hand for his study. Not only do we lack definite knowledge of the cause of the increased blood pressure which leads to the hypertrophy, but we have no consistent data as to just what sort of anatomic changes must be present in the kidney in order that heart hypertrophy may result. While the classical text-book dogma that parenchymatous nephritis leads to œdema without heart hypertrophy and that interstitial nephritis leads to hypertrophy with little or no œdema is correct in a considerable proportion of cases, yet the exceptions are so abundant as to make the rule of little value in explaining the relation of renal changes to heart hypertrophy. Hypertrophy accompanying typical parenchymatous nephritis is by no means rare, while even more common is the occurrence of advanced interstitial changes without hypertrophy.

The author has made a systematic study of the occurrence or absence of hypertrophy in advanced interstitial nephritis and finds that the failure of hypertrophy is usually observed when the kidney shows the changes characteristic of that form of nephritis commonly known as the secondarily contracted kidney. In the typical red granular kidney hypertrophy is seldom missing, but even here there may be exceptions.

One hypothesis which has found considerable favor is that the degree of cardiac enlargement depends on the extent to which the glomeruli are involved, but the author was unable to confirm this. It is, indeed, a striking fact that in amyloid kidneys, in which the glomeruli are most extensively involved, hypertrophy is almost invariably absent or slight, even when the amyloid changes are accompanied by a considerable degree of connective tissue increase and contraction. In the secondarily contracted kidney, glomerular fibrosis is usually marked, although heart hypertrophy is commonly slight or lacking. Equally inconstant is the relation between the amount of destruction of parenchymatous tissue and the cardiac involvement.

The total failure to correlate in any constant and definite way the anatomic changes in the kidney with the heart hypertrophy leads only to the assumption that the cause of the increased blood pressure must be formed

or accumulated independently of the structural alterations in the kidney, and, therefore, presumably outside the kidney. It may well be that the substances which are abnormally present in the blood in nephritis and which cause the increased blood pressure are quite distinct from the poisons that cause the kidney changes, and these both may be quite different again from the poison or poisons that cause uræmia; such a view is at least in agreement with the manifest lack of correspondence in the relative intensity of these three features in cases of interstitial nephritis.—*Post-Graduate*, June, 1909.

CARDIAC PAIN.—In the *Munchener Med. Wochenschrift*, No. 14, 1909, L. Selig discusses the etiology of a phenomenon often difficultly disposed of by the physician. The commonest cardiac sensation is palpitation, due in the healthy to increased energy of contraction. In the large group of "nervous hearts," psychic conditions become chiefly etiologic, and in nervous patients these sensations may develop without psychic alterations and frequently at a definite hour. Another phenomenon is that of cardiac anxiety or anguish. All cardiac patients have a fear that something may happen to them, but the anxiety is often dependent upon actual lesions, such as sclerosis of the coronary arteries and myocarditis, and reaches the maximum in angina pectoris. The cause of stenocardiac states is not always a coronary sclerosis; general nervousness, tobacco, partial or general spasm of the cutaneous arteries are often factors. Another group of sensations are educed by disturbances of rhythm and retardation of the cardiac impulses. In many cases the sensation is attributed to the heart, though the cause is to be sought elsewhere. In nervous patients a point located below the breast is often extremely painful, especially so from energetic palpation. Many cases complain of a cutting, burning or gnawing pain. There may be a hyperesthesia of the nipples. The supposed cardiac pain in women is frequently in relation with heavy pendant or fatty mammæ. This great weight causing dyspnea and various pains in the heart region, much relieved by the use of a "breast elevator," sold in the shops and fitted to any corset now in use. Cardiac pain is often confused with pain in the adjacent bones, particularly where these have gouty deposits on the anterior parts of ribs, in which case, the tincture of iodine renders good service. Likewise an intercostal neuralgia may cause "cardiac" pains. Vaso-motor disturbances, especially in arterio-sclerotic patients, may develop anginoid states (in connection with cold, damp weather). Vascular crises play an important role in the most diverse cardiac sensations, and obstipation, flatulence, irritation of the walls of the stomach, disproportion in the size of heart and thorax may develop cardiac pains.

DIABETES INSIPIDUS.—W. Ebstein, in the *Deutsches Archiv für klin. Medizin*, B. 95, H. 1-2, says of the disease: Diabetes insipidus whose essential symptoms are polydipsia and polyuria, is neural in origin, whether due to material injuries to the nervous system, particularly where the spinal axis is directly or indirectly injured, or due to functional disturbance of nerves as in the so-called general neuroses and other neural diseases. The part played by syphilis in the diabetic is also most lucidly explained by the traumata, either material or functional, suffered by the ner-

vous system, the augmented fluid is sequent to the continually increasing thirst; the polyuria, however, is oftener conditioned by the fact that the kidneys, though free from nosologic alteration of structure, are able to excrete the proper quantity of urinary material, only because of the augmentation of fluid. To determine whether the polydipsia or the polyuria be primary is often impossible and there are, perhaps, mixed forms. In seniles where the above symptom-complex is present, the first thought should be, not of diabetes insipidus, but of a serious renal lesion, especially when the development of the condition is insidious. Therapy must take the etiology of the disease into consideration, e. g., a salt-free diet (since by immoderate ingestion of salt, polydipsia and polyuria may develop); careful limitation of the fluids taken, and, finally, antisyphilitic treatment.

OSTEOMALACIA AND OVARIOTOMY.—Since Fehling's observation that osteomalacia is curable by removal of the ovaries, hundreds of cases have verified the correctness of this curious discovery. Naturally, attempts were made to demonstrate an etiologic relationship betwixt the disease and the organ, but these have led to no positive results, and, according to the writer's view, there exists no typic histologic ovarian picture in osteomalacia. It might be objected that certain functional changes in ovarian secretion might cause the disease, no histologic changes being present, or the good effect of phosphorus or adrenalin therapy might be cited, and these clinical data prove, at least, that castration is not the only curative method, and that we are not justified in assuming that osteomalacia depends upon altered ovarian function. It is true, nevertheless, that there is a relationship between the two, and a characteristic in the course of the disease (and also an important diagnostic point) is the aggravation at the menstrual period and during pregnancy, phenomena in direct relation with the condition of the ovary. During pregnancy the progress of the disease is entirely independent of the development of the child and the metabolism incident to the gravid state, so that if operation for the cure of the malady be indicated, it is necessary to remove the ovaries only, and not, as formerly, to terminate the pregnancy.—Dr. H. Cramer, *Munchener und Wochenschrift*, 1909, No. 15.

TUBERCULOSIS AND MENSTRUATION.—Geissler notes that the relation of the temperature curve to the menstrual period will often develop a diagnosis of tuberculosis in cases where physical, bacteriologic and serologic methods have failed to verify the existence of the disease. In the carefully observed cases described by the author, elevation of temperature was either pre or intermenstrual, invariably returning to normal with the commencement of the flow. After the patient had been kept for some time under a strict antituberculous regime (forced feeding, thiocol internally, residence in a Southern climate), the temperature elevations just noted, disappeared.—*Russky Wratsch*, 1909, No. 3.

RIDING AND ITS INFLUENCE UPON THE BODY.—In the *Medizinische Klinik*, 1909, No. 9, Dr. Pickenbach describes equestrianism as a pleasurable but violent exercise, whose exertions are first noted by the rider after dismounting. The author describes exhaustively the muscles and joints af-

fected; holds that male and female riders should use special saddles; mentions the various gaits of the horse and their action in both sexes upon the intestines, glandular organs, heart, respiration, etc. Riding should be prescribed where we wish to strengthen the skeletal muscles, limber the joints, exercise intestinal peristalsis and the glandular and vascular systems. It is extremely valuable in arterio-sclerosis, congestions, hepatic stases, etc., often useful in neurasthenia and mild melancholia, and acts favorably (von Noorden) in cases of mild diabetes. Riding, according to the writer's experience, is also directly stimulant to the genital organs. Other conditions (light emphysema, minor affections of cardiac muscle) are mentioned as deriving benefit from the sport, and its contraindications are likewise given. The morning ride is considered the most healthful. The automobile as an aid to health is consigned to limbo.

DISINFECTION WITHOUT SOAP OR WATER.—Prof. von Herff commends the following method of cleansing the operative field: The day before operation the patient is bathed and the hair shaved or, better, removed with the Beiersdorf depilatory powder. Just before operation, whilst in narcosis, the superficial germs are removed from the field, wherever it is, by a 50% alcohol-acetone mixture gently rubbed on for 4-5 minutes. An acetone-alcohol of 1:2 also suffices. The alcohol is then taken up by pure acetone applied for a minute, and the surface dried. After operation, no washing off, but dry sponging. The suture is powdered with xeroform, or, better, the tincture of benzoin is painted on, the alcohol soon evaporating and leaving an even, impervious resinous coating. All antiseptics are anathematized. The vaginal mucosa is cleansed by the use of a few hundred grammes of a 3% solution of iodine in 50% alcohol. Acetone is employed on the skin because of its great affinity for water. It somewhat "tans" the skin, without injuring its structure or functions.—*Wiener klin. Wochenschrift*, 1909, No. 13.

THE ACTION OF PROLONGED DIGITALIS TREATMENT UPON THE NORMAL AND THE PATHOLOGIC HEART.—Cloetta, in the *Archiv. f. experiment Pathologic u. Pharmacologic*, Bd. 59, Heft 2-3, presents the results of years of systematic investigation of the changes produced in the heart, and, in part, in the blood vessels by continued use of digitalis in normal and pathologic conditions. In his animal experimentation rabbits were used, which, at the beginning of the work were of the same age and weight. They were injected daily with the infusion or with digalen, and in increasing dosage, for they seemed to become habituated to the drug. Its action upon healthy rabbits appeared to be nearly nil, and Cloetta noted, as others have, that there is a constant ratio between the weights of heart and body, and between those of the kidney and heart. As regards cardiac function there was no notable difference between normal animals, whether treated with the drug or not, and they increased normally in weight. Even with abrupt stopping of the drug, no sequelæ developed. Pathologic conditions of the heart were obtained by injuring one or more of the aortic valves with a sound. With four of the operated rabbits, not treated with digitalis, death ensued in from 1½ to six months, and autopsy showed marked cardiac insufficiency, stasis and dropsy. In them, as well as in the 10

other operated animals (which were killed after 3-4 months, the heart was found hypertrophic and the ratio between heart and body weights considerably higher, whilst that between heart and kidney was lower. Twelve operated rabbits were put on digitalis, none of them dying with a sign of dropsy. Continued digitalis treatment, in the author's opinion, exercises a favorable action upon the heart's power, as it does not hypertrophy as much as when not under digitalis. In conclusion, the author opines that his results will be of value in the prophylaxis and treatment of cardiac trouble, e. g., where there is suspicion of a beginning endocarditis. His clinical experience also indicates a possible favoring action in man also.

THE DIAGNOSIS OF INTESTINAL AUTOINTOXICATION.—Anders (*Archives of Diagnosis*, April, 1909) considers this one of the most difficult of problems, and that the diagnosis should be made with much caution and reserve.

If there be present any recognizable acute or chronic affection, the diagnosis of primary enterogenous autointoxication is precluded and the case in hand is to be regarded as an instance of the secondary or symptomatic variety. It is not permissible to regard the given case as one of chronic alimentary intoxication, retrospectively merely because the symptoms have disappeared as the result of an eliminative plan of treatment, since this method also serves to remove other disposing and exciting causes.

In connection with the principal causative factors, notably impaired metabolism, dietetic errors and certain pathologic conditions of the intestinal tract, e. g., mucous colitis and chronic appendicitis, the following symptom group would suffice for an assured diagnosis: Heavily coated tongue, fœtor of breath, indications of Rigg's disease, headache at intervals, insomnia, marked constipation, evidence of fecal accumulation in the colon, the elimination of an increased amount of indican and the frequent presence of acetonuria. Less characteristic, perhaps, although strongly confirmatory, are the nervous manifestations and the associated febrile, arthritic and cutaneous conditions previously described. The writer feels that it is imperative to draw a practical distinction between primary chronic auto-intoxication of intestinal origin and that form which occurs secondary to other acute and chronic diseases.

In the latter variety, which is decidedly more common than the former, the alimentary autointoxication is sufficiently open to observation to be recognizable, and it requires attention, but it is not to be regarded as the principal disease. Concerning the effect of the excessive ingestion of proteids, Taylor observes: "There is now current in the laity, and also among many physicians, the idea that the heavy consumption of protein is harmful—indeed, the cause of widespread disease. It is supposed to be responsible for gout, innumerable ill-defined diatheses, arteriosclerosis, nephritis, a large number of skin diseases, and, by extreme vegetarians, for an intoxication *sui generis*. For all these claims there is no adequate basis. The excess of protein is hydrolyzed; the body displays the greatest vigilance in keeping the system in a nitrogen balance. To accomplish this means an expenditure of energy which might be conceived to lead to disturbance of function. With an increased protein ration the protein residue in the intestine is increased, affording a greater substratum for putrefac-

tive processes. The products of the excessive protein metabolism have all to be eliminated, and this imposes an increased task upon the kidneys. If the products of protein metabolism be toxic, this toxicity must be exaggerated under an excessive protein diet. These considerations make it apparent that the excessive ingestion of protein might tend to alterations in metabolism and elimination that would constitute autointoxication."

But though experimental evidence may be wanting to show that the development of gout, arteriosclerosis, nephritis and other forms of degeneration is, in some instances at least, dependent on autointoxication, clinical experience and observation lend striking confirmation to this view. Contributing factors, however, may be found, as a rule, and this fact renders the problem of ascertaining the precise etiologic import of self-poisoning in the given case one of exceedingly great difficulty. The author's results of the use of dietetic regulations have convinced him that there is a normal diet for the individual. If this be exceeded, there may or may not be disturbance of function and structural changes.—*Med. Rev. of Reviews.*

AORTITIS, AORTIC ENDOCARDITIS AND SYPHILIS.—(*Jour. of the Amer. Med. Assn.*, May 22, 1909, p. 1668.) With the development of two new diagnostic criteria of syphilis the Wassermann reaction and the finding of spirochetes, it has been possible to approach the so-called parasyphilitic diseases from a new ground, with the result of brilliantly confirming the conclusions previously reached by clinical observation. As the parasyphilitic affections are late manifestations or results of syphilitic infection, and for the most part not accompanied by definite syphilitic lesions, the search for spirochetes has not been of much help in their etiologic determination, since these organisms are usually found with difficulty in even the most typical lesions of the tertiary stage. With the help of the Wassermann reaction, however, it has been demonstrated that the relationship between syphilis and such diseases as tabes and general paralysis is fully as frequent as the clinicians have long believed, and if anything more so. The variations in the results obtained by the laboratory investigators who have applied the serum test to these diseases, are about the same as we have been accustomed to see reported by clinicians who were endeavoring to establish a relationship on the basis of clinical history and coexisting syphilitic manifestations.

Among the parasyphilitic lesions degenerative and productive changes in the aorta, with resulting aneurism or aortic insufficiency, have long presented problems to the pathologist and clinician of great practical as well as theoretic interest. Even Ambroise Pare, Morgagni and other early masters of medicine recognized that syphilis played an important role in the etiology of arterial diseases, but we owe especially to the work done under Heller at Kiel our present understanding of the characteristic features of aortic syphilis. Now it is generally recognized that fleshy nodular thickenings of the aorta, most abundant in the ascending part, and frequently extending to the aortic valves with resulting incompetence, are commonly of syphilitic origin, especially when they concern individuals in the prime of life. Microscopically, these lesions are found to involve chiefly the media and adventitia, consisting of foci of round cells in the vicinity of the vasa vasorum, while in the media may be found foci of

necrosis which sometimes are typically gummatous in character. As a rule, the histologic features of these lesions are not such as to prove conclusively their syphilitic origin, and consequently the pathologists have discussed at much length the proportion of such aortic lesions that should be ascribed to syphilis, and the possibility of similar lesions being produced by the acute infectious diseases. It seems to be generally accepted, however, that the most usual cause of such changes in the aorta is syphilis, although it is possible and probable that they are not by any means specific evidence of syphilitic infection. In other words, their status is just about the same as that of tabes and paresis in respect to etiology. Monckenberg found that of the reported cases of aortitis 33 per cent. showed positive evidences of syphilis, while in a further 44 per cent other parasymphilitic affections coexisted. Chiari reported that of 27 cases of undoubted syphilis examined post-mortem aortitis was present in 16, and of 44 paralytics 21 showed aortitis, indicating that more than one-half of all syphilitics coming to autopsy show characteristic lesions in the aorta. Similar results have been obtained by clinical observation. In v. Strumpell's clinic of 24 cases, tabes and aortic lesions, chiefly aortic insufficiency, coexisted in 15.

The earlier attempts to locate spirochetes in the aortic lesions resulted for the most part negatively, so that the positive findings reported by Schmorl, Reuter and Benda were accepted with more or less skepticism in view of the possibilities for error that the degenerated aortic tissues offer to the searcher for spirochetes. However, now that Wright and Richardson have reported the finding of structures morphologically identical with *Spirocheta pallida* in all of five cases of aortitis examined by them, there will be no hesitation in the acceptance of these positive findings by Americans who are familiar with the splendid technic of the Boston laboratory.

All the above findings taken together would seem to prove finally the importance of syphilis in the etiology of the nodular form of aortitis which is so frequently associated with insufficiency of the aortic valves. Indeed there seem to be relatively few cases of simple aortic insufficiency that are not due to syphilis, especially if we exclude those cases where there is a history of rheumatism. As the Wassermann test seems to have distinct value in indicating the activity of syphilitic lesions, there would seem to be an excellent opportunity for therapeutic advance in the treatment of aortic regurgitation when of syphilitic origin, as most of the uncomplicated cases are shown to be.—*Post-Graduate*.

TUBERCULOUS CIRRHOSIS OF THE LIVER.—By Dr. S. Isaac (*Frankfurter Zeit. f. Path.*, Wiesbaden, 1908, ii, p. 125. Ref. *The British Med. Jour.*, May 22, 1909.) The association of pulmonary tuberculosis with cirrhosis of the liver has often been noted in man; in rabbits or guinea-pigs infected with tubercle bacilli the liver is often cirrhotic. The author remarks that the cirrhosis is usually atrophic, although Hanot's hypertrophic cirrhosis has been recorded, and may simulate tuberculous peritonitis very closely. He details the case of a man of 45 who had had "fever" and syphilis in Java twenty years before, and early in January, 1904, had cough and fever. In March the cough had gone, but the fever persisted, and the patient's liver was enlarged. Rest in bed, iodide, and mercurial

inunctions were prescribed, but the liver did not lessen. No history of alcoholic excess was obtained. In June the liver reached to within a finger breadth of the navel, its edge was sharp, its surface smooth; the spleen was much enlarged, the heart was hypertrophied; the lungs showed no abnormal physical signs. The morning temperature averaged 96°, and the evening 102°; hepatic abscess was suspected, and an exploratory laparotomy was performed in July, 1904. The liver was found to be very large, soft, with a faintly nodulated surface, but no abscess could be found by puncture; the spleen was six to eight times the normal size, and slight ascites was present. The patient left the hospital in September; for about six months he had had much cutaneous itching, latterly with an urticarial eruption; the lungs showed nothing abnormal. In October jaundice set in, and the pruritus was more troublesome. The fever continued, and puncture of the liver was tried, with negative results; antisyphilitic treatment was given several times, without improvement. In November, 1906, an effusion appeared in the right pleura, no evidence of pulmonary phthisis having till then been found. In March, 1907, the patient became worse, dying at the end of June. At the autopsy 5 pints of ascitic fluid were found in the abdomen; the great omentum was rolled up and adhered to the liver, and contained numerous small yellow-stained tubercles, as did the mesentery and peritoneum. The liver weighed 21 pounds, and was extensively adherent to the diaphragm, smooth on the surface, deeply jaundiced, and showed no normal acinous structure; the cut surface exhibited small areas 2 to 4 mm. in diameter separated by sunken fibrous septa, without any macroscopic caseation, and gave no amyloid reaction; the liver tissue was very tough, the kidneys showed many small yellow tubercles; the lungs showed extensive tuberculous lobular pneumonia, but no old tuberculosis. The spleen contained typical solitary tubercles, as did the bronchial glands. Microscopically the liver showed extensive destruction of the liver cells, much infiltration with small round cells, countless typical small tubercles in the acini and in the interacinar tissue, and a few newly-formed bile ducts in the parts where the inflammatory reaction and congestion were most marked; other parts of the liver showed mainly fibrosis. The bile ducts and vessels exhibited much inflammatory invasion of their walls. The fibrosis generally extended into the acini of the liver, only exceptionally being limited to the periphery of the lobules. Tubercle bacilli were freely found in the liver, both in the tubercles and in the aggregations of small round cells. The author regards the case as a primary hematogenous tuberculosis of the liver, running its course in three and a half years, associated with hypertrophic cirrhosis, and spreading to the lungs only a few months before death.

THE OCHSNER TREATMENT OF APPENDICITIS.—The Ochsner treatment of appendicitis has come to be recognized as a decided success, and has undoubtedly resulted in a distinct lowering of the mortality rate, especially in the more serious cases.

Ochsner described his treatment in full before the Chicago Medical Association, October 10th, 1900, giving in this original paper the results of eight years' employment of the treatment. At that time he set forth certain propositions in reference to the treatment which were very widely quoted in medical journals. Greater prominence was

given to his method when he presented it in his chairman's address before the Section of Surgery at the fifty-second annual meeting of the American Medical Association, at St. Paul, in 1901. He deserves great credit for systematizing the results of his own observation and experience, for calling attention to the admirable protection which nature affords the appendix by its anatomical surroundings, and for the danger occasioned by peristaltic motion in the small intestine. In his second paper he described (a) the attempt on the part of nature to close the ileo-cecal valve to prevent the passage of the intestinal contents into the inflamed area, (b) the movements of folds of the omentum toward and around a seat of injury, (c) the increased peristalsis occasioned on the introduction of food into the stomach, (d) the exulate and new formation thrown out by the peritoneum to wall off the inflamed appendix, (e) the harmful influence which cathartics exert by disturbing the inflamed tissues, and by carrying infectious material to other parts of the peritoneal cavity, (f) the toxic character of stomach contents and (g) the danger of operation at the acme of septic intoxication.

We may best describe the treatment by giving his conclusions or postulates:

1. Patients suffering from chronic recurrent appendicitis should be operated upon during the interval.

2. Patients suffering from acute appendicitis should be operated upon as soon as the diagnosis is made, provided they come under treatment while the infectious material is still confined to the appendix, if a competent surgeon is available.

3. Aside from insuring a low mortality this will prevent all serious complications.

4. In all cases of acute appendicitis, without regard to the treatment contemplated, the administration of food and cathartics by mouth should be absolutely prohibited and large enemata should never be given.

5. In cases of nausea or vomiting, or gaseous distention of the abdomen, gastric lavage should be employed.

6. In cases coming under treatment after the infection has extended beyond the tissues of the appendix, especially in the presence of beginning diffuse peritonitis, fasting and gastric lavage should always be employed until the patient's condition makes operative intervention safe.

7. In case no operation is performed, neither nourishment nor cathartics should be given by mouth until the patient has been free from pain and otherwise normal for at least four days. The same practice should be followed after operation.

8. During the beginning of this treatment not even water should be given by mouth, the thirst being quenched by rinsing the mouth with cold water and by the use of small enemata. Later small sips of very hot water, frequently repeated, may be given, and still later small sips of cold water. There is danger in giving water too freely, and there is great danger in the use of large enemata.

9. All practitioners of medicine and surgery, as well as the general public, should be impressed with the importance of prohibiting the use of cathartics and food by mouth, as well as the use of large enemata, in case of patients suffering from acute appendicitis.

10. It should be constantly borne in mind that even the slightest amount

of liquid food of any kind given by mouth may give rise to dangerous peristalsis.

11. The most convenient form of rectal feeding consists in the use of one ounce of one of the various concentrated liquid predigested foods in the market, dissolved in three ounces of warm normal salt solution, introduced slowly through a soft catheter inserted into the rectum a distance of two or three inches.

12. This form of treatment can not supplant the operative treatment of acute appendicitis, but it can and should be used to reduce the mortality by changing the class of cases in which the mortality is greatest into another class in which the mortality is very small after operation.

To conclusion 8 are now regularly added the method, introduced by Murphy, of administering a continuous enema of normal salt solution, and, in case of diffuse peritonitis, the Fowler position.

The clearness of statement in these conclusions should be a guarantee against misconception or misunderstanding, and the soundness of the principles upon which they are based should secure for them general recognition.

One misconception relates to the extent to which the treatment applies. Physicians generally seem to assume that the Ochsner treatment refers to fasting and rest without reference to other phases of the treatment. They fail to note that the second postulate recommends early operation when practicable in all cases, and that other postulates cover indications for treatment of the severe as well as the interval cases.

There is no suggestion in these postulates that this treatment is to serve as a substitute for operation. It is from beginning to end surgical, or a preparation for surgical measures. The starvation part of it should perhaps be called Ochsner's preparation rather than his treatment for his treatment proper includes operation. We should bear in mind that the treatment includes preparation, operation and after-cure.

To review briefly the Ochsner treatment: In all cases of acute appendicitis all food, water and cathartics by mouth are prohibited. If nausea persists gastric lavage is repeated once or twice at intervals of two to four hours. In all cases seen within thirty-six hours, which give no evidence of perforation or diffuse peritonitis, immediate or early operation is performed. In cases in which recovery seems doubtful the operation is to be postponed and the Ochsner starvation preparation carried out, and in such cases a late operation is to be performed with complete removal if infection is confined to the appendix, or if circumscribed abscesses have developed they are to be opened and drained. The advantage of this treatment is that there is almost no mortality. The patients are promptly cured, suffering is reduced to a minimum and complications are not liable to occur.

In cases of perforative or gangrenous appendicitis, with and without abscess, concerning which there is perhaps the greatest diversity of opinion, the Ochsner treatment has succeeded in greatly reducing the mortality. In a series of a thousand consecutive cases of appendicitis, reported by him, there were 55 cases of perforative or gangrenous appendicitis with abscess belonging to this class; all treated by the starvation preparation and subsequent operation without a death. In all of these cases food by mouth and cathartics were prohibited, gastric lavage was employed, exclusive

rectal feeding was instituted and continued for one week or longer until they were normal as regards temperature, pulse and absence of pain in the region of the appendix.

Of one thousand cases thus treated by Ochsner from July 1, 1901, to April 1, 1904, including the cases reported above, the mortality was but 2.2 per cent. This list included seven cases of diffuse peritonitis not operated upon because they were in a dying condition when admitted to the hospital. Omitting these cases there were 993 cases operated upon with but fifteen deaths, a mortality of 1.5 per cent. Leaving out the 540 cases of chronic appendicitis and interval operations, Dr. Ochsner's percentage of mortality for operations, both early and late, in acute appendicitis is 2.6. Since then the mortality rate has been still further reduced.—*James W. Barnhill, Amer. Jour. of Surgery.*

A CASE OF ASTHMA.—After giving lycopodium and arsenicum with no big decided results, chelidonium was given. Result prompt and improvement symptoms suggesting it.

1. Dyspnœa better during the night. Hering has it "respiration improved in the evening in bed." Kent's repertory gives under amelioration lying down: bry., calc. ph., chel., dig., hell., laur., nux v., psor.

2. Aggravation the latter part of the afternoon and amelioration in the evening, provided the evening meal was light.

3. Coated tongue showing the imprint of the teeth.

4. Lameness and soreness to touch in ankles, heels, thighs and ribs, especially marked on the right side.

Less important but corroborative of chel. were:

1. Difficult respiration after eating.

2. Sour taste.

3. The fact that the symptoms pointed to some portion of the intestinal tract as the seat of irritation.—Dr. Lawrence M. Stanton, in April *Medical Advance*.

MOTOR ATAXIA FROM EMOTION.—S. Weir Mitchell describes an emotional ataxia which may occur in "nervous individuals" who are otherwise apparently in good health. One of his patients when required to write in the presence of others was unable to do so in a legible manner. When eating in the presence of strangers the same patient was compelled at times to leave the table because of the development of tremor and ataxia severe enough to render impossible, without the use of both hands, the carrying of food to his mouth.

Patients affected with "general nervousness" may become so extremely self-conscious that the execution of any habitual act is disturbed or prevented by the development of ataxia due to expectant attention. Alcoholic drinks usually prevent or remove the condition. The author explains the manifestations by the well known fact that even in perfectly normal individuals automatic acts are interfered with when conscious attention is directed towards their performance, or their successful completion is regarded with doubt.—*Jour. of Nerv. and Ment. Dis.*, May, 1909.

CHARLES D. FOX, M. D.

PENMANSHIP STUTTERING.—E. W. Scripture reports a case of graphic

stuttering in a bank clerk. The condition was caused by exaggeration of his former poor penmanship, following its adverse criticism, and was maintained by expectant attention (fixed or compulsive ideas) and fear of writing illegibly. His speech was normal. The treatment adopted for this case, based upon the principle of re-education that is used in the treatment of vocal stuttering, was graphic training by means of a specially devised hieroglyphic alphabet. Patients afflicted with stuttering, either vocal or graphic, must be made to feel that they are speaking or writing in a new way.—*Jour. of the A. M. A.*, May 8, 1909.

CHARLES D. FOX, M. D.

THE SENSORY SYSTEM OF THE FACIAL NERVE AND ITS SYMPTOMATOLOGY.—As a supplement to his previous papers dealing with geniculate herpes, J. Ramsay Hunt shows, in an exhaustive paper on the facial nerve, that this nerve is a mixed one which contains sensory fibres originating from the geniculate ganglion. He looks upon the facial nerve with its ganglion and its motor and sensory (*pars intermedia* of Wisberg) roots as being the homologue of the trigeminal nerve with its Gasserian ganglion and its motor and sensory roots. Herpetic inflammation of the geniculate ganglion causes atalgia and herpes opticus. Involvement of the facial nerve results in facial paralysis, while auditory symptoms may be evoked when the auditory nerve is affected. Even the typical symptoms of Meniere's disease may appear in severe cases with auditory involvement. In cases of herpetic inflammation of the geniculate ganglion herpes zoster facialis and herpes zoster occipito-collaris may be superimposed upon the usual symptoms of the condition, because of the tendency of the inflammation to spread to adjacent ganglia.

The author affirms that there exists a type of otalgia which is dependent upon a neurosis of the geniculate ganglion and its system and which bears the same relation to these structures as tic douloureux does to the trigeminal system. Tabetic otalgia, a manifestation of organic degeneration of the nerve of Wisberg, has been observed by the author in five cases of tabes and in one case of tabes of fifteen years duration this degeneration was found by him.

He believes that the organic facial spasm of Brissaud is a reflex phenomenon which is dependent upon irritation of the sensory system of the facial nerve. Pain was present as an early symptom in all but two of thirty personal cases of facial neuritis; the lesion in these cases being situated in the Fallopian canal between the geniculate ganglion and the stylo-mastoid foramen. Homolateral hyperesthesia of the face was encountered in two of these cases, but this condition is regarded by the author as a functional derangement of the Gasserian ganglion and one which is due to motor insufficiency of the paralyzed face. In nine of the cases, however, hyperesthesia of the conchus of the ear was present. The original paper, containing a historical resume and a bibliography, should be consulted as it contains much which is valuable.—*Jour. of Nerv. and Ment. Dis.*, June, 1909.

CHARLES D. FOX, M. D.

THE PRESENT METHODS OF TREATING GONORRHEA IN FRANCE.—(*Der gegenwartige Stand der Gonorrhoeotherapie in Frankreich.*) K. F. Hoff-

mann, Paris. *Muenchener Medizinische Wochenschrift*, May 11, 1909. The author outlines the methods most in vogue. Small injections in the patient's control are not employed. Fournier's treatment by means of bicarbonate, and later the oils of copaiba and cubeb, is used by but few. On the whole Janet's irrigations are almost universally practiced. The solution of potassium permanganate produces a vigorous serous exudation from the mucosa and also is strongly germicidal. When the inflammation is hyperacute hydrargyrum oxycyanatum 1 :4,000, proves less irritating than the permanganate. If seen early—within six days after infection—abortive treatment is largely practiced by injecting several c.cm. of 1-2 per cent. silver nitrate into the anterior urethra. After a few hours an anterior irrigation of 1-2,000 permanganate is given, to be repeated the next day. Thereafter twice daily complete irrigations into the bladder are given, the first one being preceded by cocainization. Most gonorrheas heal within 2-3 weeks. Where strong mixed infections are encountered irrigations with sublimate 1 :20,000 are practiced. Complicating inflammations of the prostate, vesicles or testicles are rare. Their treatment is that generally accepted, but does not require cessation of irrigation.

The site of chronic gonorrheas is determined by filling the bladder and then in turn massaging the bulb, vesicles and prostate, with urination between each of these acts to examine the expressed secretion. The pendulous urethra is palpated after introducing a No. 25 rubber sound. Chronic gonorrhea is treated by systematic expression and irrigations.—*Amer. Jour. of Surgery*.

THE THERAPEUTIC USE OF TUBERCULIN IN THE TUBERCULOSIS OF INFANTS AND CHILDREN.—Schlossmann (*Deutsch. Med. Woch.*, February 18, 1909, No. 7), in an article illustrated with X-ray photographs and different kinds of charts, takes up at length the treatment of young patients with tuberculin. He reports several cases during the article. He considers that in children's tuberculosis, tuberculin has a specific healing power. First, a period of small doses should be gone over in order that the child may become tolerant to the tuberculin. Then larger doses should be given over a considerable length of time. During this stage the child is supposed to develop antibodies. Then big doses are given with a corresponding interval between. During the period of large doses he has not observed any harmful effects.—*Boston Medical and Surgical Journal*.

PULMONARY TUBERCULOSIS IN CHILDREN.—Williams (*British Medical Journal*) says that phthisis is one of the most common diseases of childhood, and, among those who die of it at the ages when it causes the highest mortality, the majority have contracted and suffered from the disease in childhood. This view is supported by death and morbidity statistics.

In the immense majority of cases tuberculosis is not contracted by inhalation, but by the ingestion of bacilli or bacilliferous products by way of the intestinal mucosa. The tendency of the disease in these cases is to cure.

Important early symptoms are night sweating, morning anorexia, and fatigue. It is urged that the greatest care be taken to detect these cases early by the medical school inspectors and, when found, that the children be sent to open air schools.

THE POSSIBILITY OF PREVENTING DIABETES OR OF POSTPONING ITS ONSET.—Williamson, *The London Practitioner*, states that precautions for preventing or postponing the onset of diabetes may be considered in the following cases:

1. In the case of individuals who have a family history of the disease, and especially if a brother or sister has suffered.

2. In the case of Jews, whose profession or business cause great mental overstrain, especially those who are very ambitious, those who are very stout, who eat an excess of food, and who take little exercise.

3. In the case of women whose urine has contained a considerable amount of grape sugar during pregnancy, which has disappeared after parturition.

4. In cases of gout, acromegaly, and great obesity, especially if the obesity should have developed at an early period of life.

5. The possibility of diabetes is worthy of a thought in the case of men who have reached the age of forty or fifty, who have had great mental strain in their profession or business, who have been very ambitious, worked very hard, and taken little exercise. If such individuals have taken an excess of food and alcohol, and have become stout, there is a greater risk.

6. In very stout women just after the climacteric period, and after an operation on the uterus or ovaries, the risk of diabetes is worth bearing in mind, especially when there is a family history of the disease.

7. When the urine has been found to contain a trace of sugar temporarily after an acute illness, an injury, an excess of sweet food, etc., or at the examination for life insurance, the question of the prevention of permanent glycosuria, or true diabetes, requires consideration.

8. In all cases of permanent slight glycosuria it is desirable that the mode of life, diet, etc., should be carefully considered and regulated, with the object of preventing, if possible, the affection from developing into a severe form of diabetes. Many cases of slight or temporary glycosuria develop, in course of time, into severe diabetes; but it is important to remember that this is not always the case, and, both in the young and the old, a slight glycosuria may disappear or remain slight or intermittent, without progressing into severe diabetes.

When a consideration of the family history or life history of any individual leads us to think that there is a special risk of diabetes developing, the following precautions as to the mode of life appear to be advisable, in view of what is known regarding the etiology of the disease.

Sugar, sweets, chocolate, very sweet fruit, and all articles of diet or drinks containing much sugar should be avoided. It is easy for most individuals to acquire the habit of taking food without sugar; but if there should be difficulty in this respect, saxin or saccharin may be used.

Unless actual glycosuria has been detected there is no reason why an average amount of starchy food should not be taken; but of course great excess of starchy food would not be desirable. As already mentioned, observations on alimentary glycosuria show that sugar is much more powerful than starch in producing glycosuria.

The total amount of food should not be excessive especially after the age of forty. Strict moderation as regards all forms of alcoholic beverage is important, and sweet wines (especially port, Tokay and champagne)

and liquors should not be taken. Beer should only be taken in very moderate quantities. All beverages containing much sugar should be avoided.

A sufficient amount of outdoor exercise is very desirable, and this particularly important if the occupation should be a sedentary one. Dyspepsia and constipation should be treated, since severe dyspepsia is occasionally an antecedent of diabetes. As mental worry, mental overstrain, and overwork are so often exciting causes of the disease, it is advisable that those who are considered to be predisposed to diabetes should, if possible, choose an occupation in which there is not a special risk of these injurious influences, or that the work should be so arranged, or modified, as to diminish this risk to the minimum.

The possibility of diabetes developing is worthy of a thought in the case of successful barristers, solicitors, and medical men, who are working at high pressure, and have little time for exercise or holidays, and also in the case of publicans, who are taking alcoholic beverages in liberal quantities.

The physical and mental overstrain connected with the nursing of a sick relative or friend through a long illness should be avoided by those who are thought to have any predisposition to diabetes.

In the case of married couples, if one should suffer from diabetes, it is probable that the liability to diabetes in the other is very slightly increased, whatever may be the explanation.

In cases in which a temporary or slight glycosuria has been detected, in addition to the precautions already mentioned, the starchy articles of food should also be restricted, because it is most important to prevent, or postpone, the development of true severe diabetes in such cases; and it is important to remember that, if the development of true diabetes can be postponed until the individual is past middle life, the disease will probably be of a less severe form.

When a considerable amount of grape sugar has been present in the urine during pregnancy, and especially if there have been thirst and diuresis, it is most desirable that pregnancy should not occur in the future.—*Charlotte Med. Jour.*

THE EARLY DIAGNOSIS OF PULMONARY TUBERCULOUS DISEASE.—(Charles Nahum Haskell, M. D., *N. Y. Med. Jour.*) The early diagnosis of pulmonary tuberculosis should not be beyond the capacity of any physician; furthermore, the serious responsibility of its early discovery rests upon the shoulders of every general practitioner. It is estimated that the patient's chances of recovery are five times greater if the disease is recognized in its incipency. The family physician is usually the one who has the opportunity to demonstrate its presence or absence, and this opportunity should never be lost. Without the most careful and thorough routine examination of all patients coming under observation, many diseases are allowed to advance unnoticed, and pulmonary tuberculosis stands at the head of the list.

Too little importance is usually attached to case history, and this is especially true of the disease under consideration. It should be complete in every detail, and special effort should be made to establish an exposure to infection. The question should be asked whether the patient has come

in intimate contact with a consumptive person at home, in social intercourse, or at work. The date of infection is often quite remote. The history of previous disease is often helpful, the most common being grippe, pneumonia, pleurisy, and fancied attacks of malaria. Enlarged cervical glands and perineal abscess or fistula in ano are suspicious pretuberculous if not tuberculous conditions.

The progress of tuberculosis is often intermittent, so that periods of good health are often deceptive. The present history often includes one or several of the following symptoms: Cough, malaise, fickle or diminished appetite, afternoon rise of temperature (often subnormal in the morning), digestive disturbances, hæmoptysis, anæmia, localized anterior chest pains, interscapular pain or pain referred to one shoulder blade, headache, nervousness, vasomotor disturbances, increased rate of pulse and respiration. Any combination of these symptoms should excite suspicion and in the absence of definite physical signs should suggest repeated examinations under varying conditions and at frequent intervals, especially in the early morning. Attention should be called to the temperature excursion. A morning subnormal of one or two degrees with a slight afternoon rise is nearly equivalent to a morning normal with greater elevation later in the day.

Physical examination is the most important of all methods of diagnosis. Invariably the clothing should be entirely removed to the waist. The patient should sit on a stool and the examiner should sit at the side of and face the patient. The co-operation of an intelligent patient in eliciting cough and breath sounds is helpful. Inspection, palpation, and percussion are valuable corroborative methods to employ, but are not nearly so valuable as auscultation. On inspection, there may be found retraction of an apex, lagging of the affected side, best determined by standing behind the patient and looking down across the anterior aspect of the chest; restricted movement at apex or base (Litten's sign). Palpation may reveal some degree of variation of vocal fremitus and pulmonary resonance. A sense of resistance on percussion may be due to thickened underlying tissue or to spasm of the intercostal muscles (Pottenger's sign), and is not of especial value. Some importance may be attached to the narrowing of the normal percussion resonance above the clavicle between the base of the neck and the acromion. Gentle percussion is preferable. The chest cannot be successfully auscultated without the use of a stethoscope or a phonendoscope especially adapted to the various irregularities of its contour. Personally I prefer the ordinary bell stethoscope, as it seemingly does not pervert the transmitted sounds as does the phonendoscope. The use of the unaided ear, especially without the clothing removed from the chest, is to be condemned, as it tends toward carelessness and inaccuracy. Every portion of the chest should be carefully examined, and certain areas should receive especial attention on account of the greater frequency of their involvement, namely, the apices above the clavicles, the apices posteriorly in the supraspinous fossæ; the region just below the clavicles; the space between the scapulæ, especially that which corresponds to the apices of the lower lobes; the lower angle of the scapulæ when the arm is thrown forward with the hand on the opposite shoulder; the area overlying the bronchial glands; the axillæ; at the lingula pulmonalis, and in children the fifth and sixth interspaces in the midclavicular line. The textbooks say

that the left apex is the most frequently involved, but a personal experience of twenty years gives preference to the right. Respiration either forced or natural, augmented by a short, quick cough, will usually reveal any abnormal sounds. The breath sounds may be jerky or interrupted, bronchial, bronchovesicular, prolonged, and high pitched or harsh. The cough sounds are exaggerated breath sounds and are subject to the same variations. The one important point in this connection is that coughing will often reveal certain rales which cannot be detected in any other way. The voice sounds are changed in character when slight consolidation has taken place and the whispered voice is appreciated more accurately than the spoken voice.

The adventitious sounds or rales are by far the most important consideration in the detection of early pulmonary tuberculosis. These are semi-dry or slightly moist and sticky, and vary from a finely crepitant rale to a sonorous sound. The more moist and coarse they are the farther the disease has progressed, so that if one were confined strictly to early or incipient cases, the rales must needs be of the finer variety. These rales are sharply localized and usually at one or more of the points mentioned above.

The tuberculins are becoming more firmly established in value in the diagnosis of tuberculosis. The conjunctival test is falling into disfavor because of its dangers. The Moro test is less definite than the von Pirquet. The latter seems the most useful of all and is being more generally used. Sharp reactions mean recent infection, sluggish or delayed reactions mean remote infection, while negative results are most valuable in excluding the disease except in advanced cases with poor resistance. These tests should form only a link in the chain of evidence which should confirm the diagnosis.

Influenza, pneumonia, chronic bronchitis, and lung conditions arising from mitral disease are to be distinguished most frequently. Influenza is commonly confounded with tuberculosis. The lesions are extensive and usually in the lower lobes, influenza bacilli are present in the sputum, which is usually abundant, and there is a disparity between the extent of the lesion and the constitutional symptoms. Pneumonia furnishes sputum in which there is found no tubercle bacilli, and there is no response to tuberculin tests. Chronic bronchitis is diffused, while tuberculosis is localized. Various other conditions are easily excluded.

To epitomize: History of exposure to infection, constitutional symptoms of toxæmia, localized adventitious sounds, tuberculin reactions, careful and repeated examinations are cardinal points to be remembered.

ECTOPIC GESTATION.—Frank (New York) has analyzed eighty consecutive cases of ectopic-gestation and says before all else, the diagnosis must be assured. Patients who give a history suspicious of ectopic pregnancy—spotting, cramp-like pains, fainting, collapse, with or without some of the less certain signs, such as amenorrhœa, the accessory symptoms of pregnancy (morning vomiting, increase in size of the breasts, etc.,) and in whom the uterus does not show the shape and size corresponding to their supposed period of gravidity, or who have a mass near the uterus, should be consigned to a hospital, or should be kept under the closest observation

at their homes. Such patients should never be subjected to forcible examinations, nor should they be curetted until every possibility of ectopic pregnancy has been definitely excluded. If after two or three days of observation the condition has not definitely improved, and no marked tendency to hematocele formation has developed, laparotomy is indicated. Should severe attacks of pain, fainting or collapse ensue during this period of waiting, operate at once. Where a hematocele is still small or ill defined, laparotomy will shorten the period of convalescence. In well defined hematoceles, vaginal section for evacuation and drainage suffices. If a patient, when first seen, is in a precarious condition, it is safer to err on the side of early operation than to wait. When a patient is seen in extreme collapse, immediate rapid laparotomy with subsequent measures to combat both the hemorrhage and shock is indicated. That inexperienced diagnosticians are deceived and fail to distinguish between transitory primary shock and really grave hemorrhage is doubtless true, but he would prefer to have them interfere unnecessarily early rather than too late.—*Amer. Jr. Obs.* Vol. 59, 211.

THEODORE J. GRAMM, M. D.

CAESARIAN SECTION.—Allen (Baltimore) in making a plea for the more frequent performance of Cæsarian section, concludes his article by saying from what has been said, it is natural to conclude that it is of the first importance to determine for or against the Cæsarian section in advance of labor, in as large a proportion of cases as possible. The prediction of the result of natural labor depends on the capacity for estimating, in advance, each of the three great mechanical factors; the obstacle of the pelvis, the characteristics of the head, and the maternal muscular powers, and in estimating the first two of these the writer considers it far more important to study carefully the relation between the two, rather than laying so much stress upon the exact measurements of either. In studying the statistics of this operation it is a very noticeable fact that the fatal cases are those in which the operation has been performed late in labor and generally after infection has already taken place. The mortality in such cases, even when hysterectomy is performed, is so high that it is probably better judgment to destroy the child, even though it be alive. On the contrary, in the clean cases the mortality is almost nil, and with increasing familiarity with the operation, the future promises a considerable improvement over the past. The hope for the future lies in the fact that the general practitioner will be taught that the time for him to seek the advice of the specialist is when he first feels anxiety about a pregnancy, or an impending labor, and not after the prospects of both mother and child have been compromised by exhaustion.—*Amer. Jr. Obs.* Vol. 59, 169.

THEODORE J. GRAMM, M. D.

THE DIAGNOSIS OF PRE-ECLAMPTIC TOXAEMIA.—Skeel (Cleveland) has studied eclampsia from a clinical standpoint, and his general conclusions are as follows: Albumin as a trace in the urine is of no value. It is present in a large proportion of cases of normal pregnancy. Albumin in considerable quantity, especially if increasing, is a strong indication of mischief. The entire absence of albumin is no proof that a woman is not

toxic. Casts and diminished twenty-four hour quantity add to the value of the urinary findings. Specific gravity is of aid if the twenty-four hour quantity is known. Blood pressure findings taken by the fingers are of little or no value. The instrumental method must be used if the test is to be a clinical guide. The blood pressure of pregnancy is normal until the last two months, when a slight rise occurs. This rise should not give a reading in excess of 150mm. The presence, over any period, of a greater pressure than this should be considered a serious matter. During labor the pressure is somewhat elevated and quite variable, and is consequently not to be depended upon. After labor blood pressure should quickly drop to normal. In eclampsia the blood pressure is uniformly elevated, often to an extreme degree. In pre-eclamptic toxæmia blood pressure is probably always elevated, and is of diagnostic and prognostic importance. The fact that albumin and casts, with rise of blood pressure may also be present in nephritis in no way detracts from their value here because we know that with increasing albumin and increasing blood pressure in pregnancy, convulsions are imminent, regardless of whether or not we are able to distinguish the immediate cause of the patient's condition. The leucocyte count in eclampsia and pre-eclamptic toxæmia is increased 50% and upward over the normal at the given period. When using the leucocyte count in these patients care must be taken to exclude the leucocytosis of digestion, inflammation, hemorrhage, drugs, etc., and to remember the normal marked increase during and immediately following labor. One must also bear in mind the greater count normally present in primiparæ as compared with multiparæ throughout pregnancy, labor and puerperium. In demonstrable ocular disturbances of early pregnancy especially when accompanied by ophthalmoscopic lesions, evacuation of the uterus is indicated. In the latter two months of pregnancy these same lesions indicate a high grade of toxæmia, but should be compared with the other findings to decide the treatment. The whole symptom-complex should be carefully studied day by day and as all the methods described are readily available in nearly every community, the general practitioner should have no difficulty in making use of them. The complete examination of these patients along the lines indicated is of much more value for prognosis and treatment than any possible investigation, no matter how complete, in one direction only.—*Amer. Jr. Obs.* Vol. 69, 369.

THEODORE J. GRAMM, M. D.

IMPREGNATION.—In concluding a demonstration of some specimens Bab has summarized his views concerning the circumstances attending impregnation, and says the rule is generally accepted that the impregnated ovum belongs to the first missed period and that menstruation indicates the abortion of an unimpregnated ovum. Detailed observation of cases must be made before any exceptions to this rule can be credited, and menstruation during pregnancy and hemorrhages at abortion must be excluded. Ovulation and impregnation following closely thereafter usually precede the first missed period. The spermatozoa may continue to live in the tubes between two periods and may retain their powers of impregnation. Impregnation may take place at any time. But for the advance of the spermatozoa into the uterus the post menstrual time is as a rule only favorable, because later

the swelling and profusely secreting uterine mucosa hinder their advance. Subjective signs of pregnancy may arise soon after the imbedding of the ovum in the uterine mucosa. In order to determine the stage of pregnancy, we must determine the type of menstruation, the beginning of the last and the preceding period and its course, date of cohabitation between the last period and the time of the first missed period, and the date of the appearance of subjective signs of pregnancy. With regular type of menstruation we may calculate the most likely time of impregnation by adding the number of days in the usual menstrual interval less three to the time of the beginning of the last period. In irregular type of menstruation, it is not possible to correctly count from the first day of the last period. For scientific statistics as to how long pregnancy actually lasts in maximum, minimum and average cases of four weekly type are only useful in whom the time of impregnation can be estimated with some degree of certainty.—*Zeitschr. f. Geb. u. Gyn.* Vol. 63, 159.

THEODORE J. GRAMM, M. D.

AVERAGE AGE OF PUBERTY IN ITALY.—Rossi Dorea's studies of this subject have resulted as follows: The average age of puberty in Italy is fourteen years and three months, as shown from observing 36,000 cases. There is a relationship between the time of the first menstruation and the development of the pelvis. In women menstruating very early or late, the number and the grade of pelvic deformities is greater than in those menstruating at the normal time. This is most likely dependent upon the influence which the ovaries exert upon the development of the skeleton and upon the nutrition of the bones, especially of the pelvis. This influence is especially marked during and before the age of puberty. We must regard it as probable, that by means of good hygienic conditions and proper exercise we may greatly diminish, during this delicate period of development, both the number of generally contracted pelvis and the grade of pelvic deformities due to rachitis.—*Arch. f. Gyn.* Vol. 86, 505.

THEODORE J. GRAMM, M. D.

RESULTS OF THE MODERN TREATMENT OF PLACENTA PRAEVIÆ.—Hannes has reported the results of treatment of placenta prævia at Kustner's clinic in Breslau. He does not agree with some recent writers who, in advocating the vaginal Cæsarian section, say that the latter surely saves the child, while the other methods of treatment do little for it. During 14½ years 246 cases were encountered at this clinic. They used the intrauterine balloon for controlling the bleeding and to induce dilatation. The membranes are ruptured before its insertion. If the fetus lies in the long axis of the pelvis and the membranes are within reach, it sometimes happens that perforating the membranes suffices. If the soft parts are dilated when the case comes under observation, the patient is at once delivered mostly by version and extraction. In 60% of the 246 cases the balloon was used. The hystereurynter has two indications to fulfil: to stop the flow of blood, and acting from within the membranes it presses the loosened placental tufts against the uterine walls; to do this the membranes must be ruptured and the rubber bag inserted within the cavity of the membranes. Its second use is to excite uterine contractions. This effect is produced almost immed-

ately after its introduction, and thus another indication is met since in these cases the uterine contractions are usually weak. The author says the rubber bag may be inserted when the cervix is dilated so as only to admit one finger, whereas for version it is conceded that two fingers must be introducible. Aside from the premature cases, and those in which the children were dead or moribund, this method of delivery was effective in bringing about delivery in 24 cases of the series of 246 with 17 living children. Version and extraction was used in 38 cases of whom 25 women gave birth to 20 living children. Forceps were used 4 times, and the 4 women had 3 living children. Combined version according to the method of Braxton Hicks was used in 26 cases, and in 11 cases with living children at the beginning of the operation, 9 gave birth to dead children. Vaginal tamponade was used in 7 cases, of which only 4 were favorable, and but one living child resulted. The author is opposed to this method of treatment except as a temporary measure while transporting a patient. The danger of sepsis is great, and the method does not stop the hemorrhage. The maternal mortality amounted to 16 cases out of 246=6.6%. The cause of death was air embolism, 3; heart disease, 2; hemorrhage, 4; hemorrhage from cervical laceration, 1; sepsis, 4; eclampsia, rupture of the uterus, 1. This study prominently displays the advantages of hysteurse, which has given 70% of living children, whereas the method of Braxton Hicks has given about the same percentage of dead children. *Zentralbl. f. Gyn.* 1909, 73.

THEODORE J. GRAMM, M. D.

DEMENTIA PARALYTICA IN EGYPT.—In the *Centralblatt für Neurologie und Psychiatrie*, 1908, No. 24, Dr. Gustav Heim says: Whilst in the German insane asylums, 10-20% of all inmates are paralytics, in Egypt it does not reach 5%; those suffering with tabes are also fewer in number. As cause of this, various reasons may be cited. It is true that in Egypt, syphilis is extremely common, but runs an unusually mild course, possibly due, in part, to the strong sulfur springs at Heluan near Cairo. Furthermore, the abstinence from alcohol of the Mohammedans certainly plays a considerable role, for, while in Germany 10-40% of the insane suffer from alcoholic mental disturbances, in Egypt we find only 2-4%. In the few Egyptian paralytics, alcohol, however, plays a much greater role. The fact that the Egyptians leave the cure of their syphilis to nature, is by no means proof of a natural cure or that mercurial treatment, on the other hand, predisposes to paralysis. This question has not been answered, and certainly needs further investigation. A lesser mental strain and excitement, as well as less hereditary taint, render the natives less apt to develop paralysis. Dr. Heim considers the indubitable leucic variations in the different countries, and its slighter virulence in Egypt as of the greatest import and influence. The dry, warm, sunny climate likewise plays its part in the cure of the disease.

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

ANALYSES: *Essay on Asthma*.—In the *Bulletin Medical* of June 23, 1909, Dr. Elie Percepid, of France, publishes an interesting article on the subject of *Asthma*, and whose valuable remarks are worth considering.

In the first place, the author describes the *actual attack*, then he divides the manifestations of the disease into *nasal*, *pharyngo-laryngeal*, and *bronchial*, and finally he gives us the evolution of the *nocturnal paroxysm*.

He starts by asserting that *asthma* is an affection characterized by an *abrupt dyspnoea*, associated with *vaso-motor* and *secretory troubles*. But we know, he goes on saying, that diseases are far from being always loyal to their type, and side by side with the mature, characteristic attack, one often meets, not only *larval*, *aberrant*, *obscure forms*, but forms which the author calls of *debut*, and are but simple outlines of the trouble.

This we must admit is a very significant assertion especially for those who do not treat diseases by their name, but after the most strict individualization, minutely examining into each particular case and adapting the appropriate remedy to the phenomena present; never, however, making the essential subservient to the incidental.

The writer with exquisite *savoir faire*, dissects the important subject and imparts to us a valuable knowledge. We shall now let him speak.

"The verification of those *abnormal forms*, of general orders in pathology, are above all marked in neuropathic manifestations, where the gradations are extremely extended and variable under the most diverse influences. It is of great value to recognize in time those *finished forms*, and to ascertain the bonds which unite to the paternal type and which may allow, after an unreserved diagnosis, to resort from the outset to a treatment, whose effects shall be more beneficial the earlier it is undertaken.

"It is thus that one sees the *asthmatic subject*, predisposed by his hypersensibility to hyperreflectivity, exhibit spasmodic reactions in the air passages of variable intensity and extent and the attenuations observed result, either from manifestations embracing only a limited portion of the air tract, or when the involvement of the total of the passage only gives rise to an immature or abortive spasm. In their totality, these manifestations may not form but the links of the same crisis, rapidly developed, but in some cases they may appear isolated. Sometimes they present long and consecutive intermediate spaces, in the same individual, who thus only arrives by degrees to the full developed malady; at other times they are restricted in one generation, to an isolated manifestation, whose complement will only be found among his ancestors or descendants.

"The invaded territories may be limited in the upper passages and be

concerned only with the domain of the *trigeminus* or of the *olfactory*, in which case the result is a *rhinospasm*, or a *tussal spasm*. The last phenomenon especially will be accentuated if the excitation bears on the territory supplied by the *superior laryngeal*. If the *pneumogastric* is more extensively involved then we have a *bronchial spasm*. If this way, we may have *nasal, laryngeal* or *bronchial crises*, attenuated, united or separated.

Nasal Manifestations.—"They are represented by a *spasmodic corysa* with transient *hydrorrhœa*. It is found under the common forms, the periodic (*hay asthma*) and the aperiodic. The physician soon notices the facility with which this class of patients take cold in the head and sneeze. There are two varieties of these *corysas*. The first variety comprises slight infections starting at the nose, against which the *asthmatic* defends himself poorly, and which rapidly degenerate into a *laryngo-trachitis* or *tracheo bronchitis*. These affections have especial importance on account of the consequences they allow. They form a separate chapter, however. We shall deal here only with the second variety, that is with the *paroxysmal corysa*.

"Under diverse causes, at all hours, but especially in the morning on rising, the patient is seized with *repeated sneezing*, with *cold in the head* and *serous hydrorrhœa*. This paroxysmal trouble is attended by *ocular catarrh* and *lacrimation*. The patient in such cases may sneeze 20 and even 30 times, but the duration is short. At the end of a time, varying from fifteen to thirty minutes, the symptoms abate and there is a marked relief. The attack, however, may be prolonged even to three hours or more. In some cases the patient complains from heaviness of the head, frontal headache, and general lassitude. If the crises are of short duration, they return frequently. Dust, a perfume, the sunlight, a current of air, cold feet or head, heat, even digestion, are sufficient to provoke the attack. It is in this way that many poor patients are made miserable by the inability of supporting even the air of a fan, and I had under my care a lady cashier in a brewery, who claimed that the rapid walking of a boy near her, was sufficient to give her a cold.

"We find many patients who for a long time only exhibit this singular susceptibility. 'How often,' says Trousseau, 'have I predicted the development of *asthma* in individuals, who suffering from these *strange corysas*, have never shown any respiratory phenomena which could aid me to confirm the diagnosis, and who finally have come to inform me that my predictions were realized.' The pathological condition may remain stationary until one day under the influence of an intercurrent disease, such as *grip*, the first manifestation of *asthma* may develop. We have observed two patients in which the grip did provoke a true case of *asthma* at the age of sixty years. Before the development of the disease, they suffered from *nasal manifestations*, *spasmodic corysa* and then from *hypertrophic rhinitis* and from *mucous polypii*, which were operated long before the *paroxysmal dyspnoea* appeared. It is possible that the sudden suppression of a *rhinospasm* may be replaced by *asthma*, as in the observation reported by a student in the *British Medical Journal* (1888), which reads as follows: 'I have been tormented for a long time by *spasmodic fits of sneezing*. I have been for some time applying *aconite* locally, with the result

that the sneezing ceased, but at night I had *crises of asthma*, which never occurred before. Under proper treatment the *asthma* disappeared, but the *paroxysmal sneezing* returned as before.'

If the patient meets with no cause sufficient to excite his malady, or if he offers enough resistance, he may during his life only exhibit the *nasal symptoms*, even if his ancestors or collaterals have suffered from *asthma*. In 621 individuals suffering from *asthma*, we have found, in the history of the family only 15 cases of *spasmodic corysa*, divided as follows: 9 times in the father or mother, 2 in the grandfather, 3 in the brother or sister, and only 1 in the son. In one case we found it at the same time in the grandfather and aunt.

Pharyngo-Laryngeal Manifestations of Asthma.—"When the excitation bears on the territory of the *superior-laryngeal nerve*, the result is *cough*. No doubt the bronchial irritation may give rise to this symptom, but then we find stethoscopic modifications not to be observed in the present cases. This *cough* is sometimes accompanied with a *glairy expectoration*, which on the larynx represents the *hydrorrhœal serous crises*, which we have verified in the *paroxysmal corysa*. The *cough* is often dry, always tenacious and returning, we even see patients coughing all night. One of our young *asthmatic patients*, highly neurotic, commenced to cough as soon as he lay down in bed. This is a posture eminently *tussigenic*, but it is chiefly during sleep that the cough assumes its character.

"As other manifestations of *attenuated spasms of asthmatic neuropathy*, these attacks of cough may be the unique manifestation of the neurosis, either as alternating or substitutive phenomena. We have observed a child, son of an asthmatic subject, having an *incessant nocturnal cough*, which resisted the usual sedative remedies, but was admirably cured by the iodide of potassium. In another patient, a young lady 20 years old, whose mother was asthmatic, the cough was not only persistent at night, but gave her little rest during the day. Motion, an animated conversation, laughing, &c., provoked the cough immediately. This prolonged condition was a source of solicitude, not only for the family, but for the doctors. The absence of all stethoscopic signs, localized and persisting, the maternal antecedents, together with the especial behavior of the reactions, led us to think of a *spasmodic cough*, which only *iodide of potassium* did relieve.

"In another form the *cough* appeared during critical intervals of *asthma* or *bronchitis*. It constituted one of the evolutive phases of the disease. We find a good example of this *cough* in the observation of Herard, reported by Trousseau. It was a lady who had suffered, first, from acute articular rheumatism, followed by *periodical megrim*, and later from a darts affection of the neck. All these signs had disappeared, but during a whole winter she was tormented by a *spasmodic cough*, which returned every night at the same hour. The condition was followed the next winter by *attacks of asthma*.

"One of our patients, suffering from *emphysematous bronchitis* (a repetition), without real *crisis of asthma*, had attacks of *spasmodic cough* which ended in *sneezing*. This mode of termination is seen frequently in *asthma*, and is a favorable symptom announcing a rapid relief. Bourgeois (1908) has published the observation of an asthmatic patient, whose *attacks of dyspnoea*, once relieved, were replaced by a *relapsing cough*,

excited by the slightest causes, but principally by the dorsal decubitus. It had, as a point of departure, a hyperæsthetic nasal zone, and ceased after a local cauterisation.

"In a third manner, the *cough* replaces the *asthma*; it appears at the usual hours and periods of the *paroxysmal dyspnoea*, in the same person. It is thus that we find a *menstrual cough* in asthmatic women. A young lady under our care suffered for years from this singular cough, which, at the age of twenty-three years, was replaced by *attacks of asthma*. Or we see the *cough* supervene at night and at those hours when under other circumstances, the asthmatic attacks do appear. I know of a young man, asthmatic, hereditary, who after the first childhood, commenced to have *attacks of asthma*, one occurring at 11 p. m., the other after midnight.

Bronchial Manifestations of Asthma.—"When one studies the *heredity of the asthmatic* in several generations, he cannot fail to observe frequently enough, that the *confirmed asthmatic* begets an emphysematous bronchial progeny, or *vice versa*. The son of an asthmatic mother, less affected than she by nervousism, will not suffer from *paroxysmal dyspnoea*; one will not find in such individual the delicate susceptibility of the *Schneiderian membrane*, but he will display his *neuropathic parentage* by some sneezing, by a tendency to *colds* and *inflammation of the air passages*, and by a fleeting emphysematous reaction. *Bronchitis*, in this class of patients, is musical, and accompanied with diverse rales and murmurs, but above all of many wheezing sounds. *Expectoration* then is more or less profuse, often glairy, and preceded by *spasmodic cough*. It is not attended by attacks of *dyspnoea*, and yet the patient must often sleep with the head high, or sit up for a moment in bed. Many can rest extended in bed, but have then a laborious, noise respiration, annoying to themselves and more so to those near them. *Bronchitis in children*, though usually apyretic, has a slight rise of temperature here. Similar observations have been published by Moncorge, of Lyon, under the name of *asthmatic bronchitis without asthma*. (1898).

This class of patients will remain for life *attenuated spasmodics*, and at a late period become *confirmed emphysematous*, likely to develop the cardiac complications which attend this condition. The evolution is the same as that of *asthmatic emphysema*. In determined circumstances, however, one may see the development of a true *crisis of asthma*. Phenomenon which can be repeated, become established, or remain as the only complete specimen of the disease.

In the families of 621 patients we found 34 times this *attenuated form of emphysematous bronchitis without asthma*, as the only manifestation, in the same individual. In *direct heredity*, father and mother, 29 times; grandfather 1, and son 1. In *collateral heredity*, brother or sister, 3 times. One can see then that these cases are not rare.

Nocturnal Distress in Asthma.—Outside of the real manifestations of the disease (*respiratory phenomena*), the crisis may appear under the form of a simple malaise, just at the usual hour of the *asthma*. During the night the patient awakes, usually between midnight and 3 a. m., full of a vague distress, an anxiety difficult to explain. The breathing is laborious, there is inconvenience and even torture on account of the gaseous exchanges in the interior of the vesicles, and we observe the patient to

sit up in bed for a moment, raise the head on the pillow, change position, and fall back into sleep again. Some have at this moment the breathing slightly musical, they are aware of their periodical troubles, take a fumigation, and rapidly relieved go to sleep once more. A patient of mine, son and grandson of *asthmatic subjects*, had no other manifestation of the disease, but this *nocturnal malaise*, which always ended with expectoration.

"The forms are variable, one of our patients, for instance, had trembling with sweats at 2 a. m. Dr. Bruissaud, who has described these various crises under the name of *paroxysmic anxiety*, considers these sweats as the result of the vascular spasm, allied to the pallor and inexplicable malaise; symptoms involuntarily placed under *angina pectoris*. During these attacks, the breathing is free and the heart calm; soon everything enters into normal order, and the crisis ends sometimes with an abundant emission of urine.

"Side by side with these phenomena, which only represent a *masked asthma*, there are others which although not pathognomonic, are somewhat related or allied to the disease in question. These phenomena are: *Laryngismus stridulus* and *ictus laryngeus*. In a report to the Medical-Chirurgical Society, in 1896, and a paper published in the *Normandie Medicale*, in 1899, we called attention to the great number of asthmatics found among patients affected with *ictus laryngeus*. Among 12 cases we found 5 asthmatic, 1 with hay fever, 4 with emphysematous chronic bronchitis, and 2 tuberculous. Dr. Moncorge has published statistics of 25 cases, in which the proportion of asthmatics was the same. We may add that the peculiar recruitment of our patients is perhaps responsible for the increased rate of asthmatics in our statistics. Apart from this circumstance, there is a parallel which is not due to simple hazard. Dr. Nicolas (1902) calls our attention about the frequent manifestations of *laryngismus stridulus* in asthmatic children.

These are *nervous reactions* which are very frequently found outside of *asthma*; but spasmodic, asthmatic individuals, *par essence*, are particularly liable to express certain excitations in these paroxysmic ways. All kinds of irritation in the air passages assume in them, to a variable degree, the type ordained by the organism, and this degree is proportionate to the lower ebb of their neuropathic state.

These variations again will not only bear on the number, frequency and intensity of the attacks, as well as on their associations, but on their form. Sometimes the prevailing form is purely *spasmodic*, at other times it is *catarrhal*.

In presence of these manifestations of *attenuated spasm*, whether they appear under the form of isolated signs of spasmodic *corysa* or *paroxysmal cough*, or whether these forms are associated to *sibilant bronchitis*, we should bear in mind that variety of *asthma* found almost always in the antecedents of the patient, as only so can we apply the appropriate treatment.

THE PATHOGENESIS OF ECLAMPSIA.—A. Dienst, in the *Archiv. fur Gynekologie*, B. 86, H. 2, 1908, develops the etiologic factors in eclampsia as the coagulative substances, fibrinogen and fibrinferment, substances simul-

taneously formed from disintegrating maternal leucocytes in the placenta. Fibrinogen is the cause of the kidney of pregnancy and the so-called affection of gravidity (hepatic lesion). The eclamptic explosion is due to the sudden freeing of greater quantities of fibriniferment, together with the almost general coagulative and thrombotic phenomena which develop.

MALARIAL CACHEXIA.—It is classic to admit the existence of a *malarial cachexia*, but this is only a modality of *chronic malaria*. According to many authorities this cachexia is late in appearing. "This cachexia, with its oedema, its ascitis, its visceral sclerosis, represents the period of defeat, of organic decay; with other words, the bankruptcy of the organism."—*Mauriac*.

The diagnosis of *malarial cachexia* rests upon three important symptoms, namely:

1. The *anæmia*.
2. The *hypersplenía*.
3. The *oedema*.

Accessory symptoms often accompany this pathological tripod, such as: fever, hepatic trouble (icterus), renal affection, nervous torpor, somnolence, apathy, as well as hemorrhages, respiratory troubles, and gangrene. This is more or less the symptomatology of this *cachexia*.

Dr. Roger Treille, after comparing published observations, comes to the curious conclusion that there is no *malarial cachexia*; that is, that no one can admit the connection between *cachexia* and *paludism*. There is not between them any relation of cause and effect. The cachexia appears, but it arises from other causes than *malaria*.

Dr. Treille does not seem to be embarrassed as to proofs for his contention. He demonstrates that a typical attack of *intermittent fever*, developing in an individual, treated little, or not at all, is free from danger; a fact well known by our predecessors of the remotest times. It does not cause the cachexia. Likewise, if an anterior megalosplenic subject is attacked by ague, the fact of previous intoxications or auto-intoxications does not explain the production or creation of the cachexia by the fever itself.

It is strange, to read in this article that the many classic observations, even the best, are far from being perfect. The diagnosis of the *malarial cachexia*, given by the authorities, is nothing but the fruit of an exaggeration of a formed resolution. Thus have been placed under the same heading such morbid states as: Malarial cachexia, alcoholic atrophic cirrhosis, and cirrhosis of other character, liver derangements, Bright's disease, urinary and digestive affections and various forms of anemia.

These errors have been due; first, to a lack of precise information as to the previous history of the patient, and second to a desire of directing the diagnosis according to preconceived ideas.—*Journal des Practiciens*.

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CEREBRO-SPINAL MENINGITIS—PERSONAL EXPERIENCES.

BY

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(Read before the American Institute of Homœopathy, Detroit, Mich., 1909.)

THE time allowed for a paper on this occasion is far too short to admit of considering the etiology, pathology and treatment of cerebro-spinal meningitis in detail. On this account, at the risk of seeming commonplace and, perhaps, unscientific, I have decided to confine myself to a brief resumé of personal experience in treating the disease, and chiefly to two epidemics, with brief comments as to the efficacy of the treatment used.

Previous to 1875 I had seen but two sporadic cases, both of which died. Now there came into my hands seven severe cases, all of which developed within two weeks of each other. During the next few months I had the care of several relatively mild cases, myself being of the number, of which I preserved no memoranda. Of the seven cases referred to, one was fifty-seven years old. The others were all under seventeen, the youngest being eight months old. The prominent symptoms were chills followed by high fever; severe pain in head, back and legs; vomiting; drowsiness or heavy sleep, and within twenty-four hours convulsions. In one case a single convulsion lasted more than an hour. Persistent opisthotonos. Every attempt to bend the head forward caused extreme pain. In this epidemic this symptom was unusually marked, and persistent, continuing after the child could turn its head from side to side and even turn over in bed.

Diplopia and strabismus. In three of the cases there was complete loss of sight in one eye. In two of the cases, on the fourth day, the hands and fingers, in a few hours' time, became enormously swollen. Not with redness and heat of inflammation, but the flesh was blue-white and almost translucent. Four had the characteristic purpuric spots; one had herpes and two had no marked skin symptoms. Three had complete hemiplegia of the left side, and one, paralysis of both lower limbs.

Two of the cases came into my hands from other physicians when almost *in extremis*, and both died. My first case was the young child. I treated it with aconite, belladonna, bryonia and veratrum viride, as was advised by our best authorities, and it died, as had all other cases I had ever seen, and they were thus treated. Discouraged with these remedies I decided that gelsemium was our best indicated remedy, and it was used in the early stage of all other cases. One drop of the second decimal every fifteen minutes, and less frequently as the symptoms improved. To this remedy I attribute my success in saving the other four referred to, and in promptly controlling subsequent less virulent cases. During convulsions hyoscyamus was given in alternation with gelsemium. For coma and paralysis opium or hellebore. For retention of urine, a common symptom in the later stages, ignatia proved effective. Most of the cases were given a hot mustard foot bath at the onset of the disease, and hot mustard-water compresses were applied to the spine at very frequent intervals.

During the next thirty-two years it was my fortune to treat several sporadic cases of greater or less severity. Not having the bedside notes at hand, I shall not report them in detail. They were all treated after the manner of the above cases, gelsemium being my chief reliance, and I can recall but one death. He had been ill four days, was in an extremely critical condition and died on the third day of treatment.

In the spring of 1907 the disease became unusually prevalent in Boston, and seven cases came under my care during my service in the Massachusetts Homœopathic Hospital. Of these seven cases one was tubercular, as proved by the spinal fluid. While an interesting case it hardly comes within the intended scope of this paper and will not be considered. Of the remaining six cases, four recovered, and two died. A brief review of each case may be allowed.

Mrs. B. Age 23. Entered as typhoid fever. Not quite well

for three or four weeks. On entering very restless, groans with pain in head. Abdomen distended and tympanitic, constipation; facial muscles constantly twitching; pain and muscular rigidity of the extremities. Blood examination. Leucocytes 1750; neutrophils, 82 per cent.; Widal, negative. Later the cervical muscles became rigid; occipital pains severe; delirium; pupils dilate while exposed to light and dilate and contract inconsonantly. First lumbar puncture gave 92 c.c. cloudy fluid, containing meningeococci. Second puncture, two days later, intracellular diplococci and considerable pus. Third puncture, six days later still, diplococci, not intracellular. The remedies given were gelsemium, belladonna, hyoscyamus, cicuta and helleborus. Hot compresses were applied to the spine. Recovered.

Mr. S. Age 42. In the morning went to business as well as usual. At noon a severe chill; vomiting; great pain in head and upper portion of spine; rigidity of neck and arms. Sent to the hospital; unconscious; eyes half open, pupils contracted, right more, semi-paralysis of right side of face. Flexor muscles of arms and muscles of neck and abdomen rigid; *tache cerebrale* marked; plantar reflexes weak; purple spots on chest and abdomen. Sibilant rales in left chest. Temperature 99.5 on entrance, soon dropped to 97.8. Died 36 hours after admission to the hospital. Remedies used were gelsemium, strychnia, sulph. oxygen, and hot compresses to the spine.

The report of the autopsy shows the extreme virulence of the attack, also the complications. A thin yellowish exudate resembling pus was found in the arachnoid and particularly upon the vertex of both hemispheres, at the base of the brain, in the lateral ventricles, and in the pericardium. Causes of death: Acute septo-meningitis (meningeococcus) chronic pleuritis, acute pericarditis, fatty infiltration of the liver, and chronic pyelitis.

Mrs. R. Age 17. This was a severe case with all the classical symptoms of meningitis in varying degrees and combinations. Extremely persistent and unusual symptoms were strabismus, delirium, paralysis of left side, while right arm and leg were in constant motion, semi-paralysis of right side of face, paralysis of bladder and rectal sphincters, purple spots on face, especially around lips, vesicles filled with bloody serum on chest and abdomen, and paroxysms of vomiting, even during early convalescence. Lumbar puncture the next day after

admission gave 41 c.c. of cloudy fluid containing meningeococci. She recovered under the use of gelsemium, belladonna, nux vomica, hyoscyamus and iris. The latter relieved the vomiting. Oxygen was used at various times. At first ice bags were applied to the head and spine, but not seeming to relieve, hot compresses were used on occiput and spine, with good results.

Mr. H. Age 30. Heavy drinker. Took the "Keeley cure" several years ago, but has been drinking since to excess. Was taken ill with headache, severe chill and expulsive vomiting. In a few hours became violently insane. His most prominent symptoms were violent delirium, at times requiring the restraining jacket; constant muttering; pupils dilated, insensible to light; sordes on lips; muscles of the jaw, neck and limbs rigid. Kernig's sign present, no Babinski. The characteristic purple spots on lips and legs. Herpes zoster extending from left ear to median line on neck anteriorly. Slight general convulsions. Lumbar puncture on the third day gave one ounce of yellowish turbid fluid. The laboratory report said "no intracellular diplococci." Puncture on the sixth day, the day of his death, gave one-half ounce of *very* turbid yellowish fluid. Unfortunately no laboratory report was made.

Urinary analysis gave sp. gr. 1040. Albumen in large amount, sugar, pus cells, few hyaline and granular casts. The treatment was practically the same as in the other cases. No autopsy was allowed.

Mr. E. Age 49. Entered the hospital as a case of rheumatic fever, with a history of having injured his knee five weeks before, from which he had not recovered and later other joints had become affected. There then developed fever, pain in abdomen, diarrhoea, epistaxis, mild delirium, inequality of pupils, *tache cerebrale*, Kernig's sign and rigidity of the muscles of the neck. Lumbar puncture gave two ounces of clear fluid. The laboratory report said "few pneumococci (?)." The interrogation point indicated uncertainty. No other puncture was made, but judging from clinical symptoms later, it was probably a case of pneumococcic meningeal infection. His temperature averaged higher than in diplococcic infection, and in the course of the disease there developed a moderate pleurodynia. His other prominent symptoms were mild delirium, rigidity of cervical muscles, paralysis of sphincters recti and of the bladder, causing involuntary dejections and retention

of urine. He recovered under the use of gelsemium, bryonia, and helleborous.

Miss W. Age 23. Entered as typhoid fever, and the symptoms were such as are usually found in typhoid. Repeated Widal tests gave negative results. There developed rigidity of cervical muscles, muscular spasms; delirium, at times requiring the restraining jacket; involuntary discharge from bowels and bladder; the characteristic spots on face, especially the lips, otitis and Kernig's sign. In the progress of the case there were recurring chills and increase of temperature, which were interpreted as reinfection. Her temperature averaged higher than usual in these cases. On admission it was 104.6. Most of the time it was between 100 and 103. During the last three weeks it was normal and sub-normal. On account of the high temperature we used ice bags to head and spine instead of hot compresses. The medicines used were the same as in other cases, chiefly gelsemium.

It may be noticed that these hospital cases were all adults. The children were sent to the children's department, which was outside my jurisdiction. This is not a large number of cases from which to deduce positive facts, but from them and other sporadic cases that have come to my care during the last thirty-four years, I may assume to speak of some things with a good degree of assurance.

As to treatment, among drugs I have found gelsemium to excel all others in breaking the force of the disease, and would feel helpless without it. It is the most symptomatically indicated, especially in the early stages of the disease. Other remedies will be suggested in the later stages of the disease by the symptoms in each individual case. The compresses of hot mustard water seem a real help and their efficacy may be explained by Bier's theory of hyperemia. In my own case I found great relief from the pains in the neck and back, that persisted many months after the acute symptoms had subsided, in the use of dry cups applied to the spine. I have used them with benefit in other like cases but have not tried them in the acute stage. According to the present theory of treatment by hyperemia it ought to be a potent remedy.

Lumbar puncture is of great diagnostic value. As a remedy or means of relief, judging from my own and other cases I have known, it seems of questionable value. Sometimes the severe cerebral symptoms appear somewhat relieved for a few

hours after the operation, but often no relief is noticeable. The theory is that it mechanically relieves brain pressure, but the small amount of fluid drawn away, usually one-fourth to one ounce, the most I have ever known being two ounces, can hardly have much effect, especially since it is quickly replaced by fresh secretion. Since the operation has proved so harmless its continued use where the symptoms of brain pressure are specially marked, is certainly justified, and as an aid to positive diagnosis it can hardly be dispensed with in most cases.

The symptoms so simulate typhoid fever it is little wonder that a light case of meningitis is sometimes mistaken for typhoid. Also the severe pain in the limbs and inability to walk have led careless diagnosticians to mistake it for rheumatism or rheumatic fever. I have known both errors to be made in a number of instances.

As to the contagiousness of meningitis, while I have known many cases where there were other children in the family, except in one instance, I have never seen or known a second case in a family. In the first series of cases my second case was a mile distant westward from the first, and my third was a mile and a half distant in the opposite direction. They developed within five days' time, and the families had no communication, either direct or indirect, with each other.

THE TREATMENT OF ASTHMA BRONCHIALE (NERVOSUM).—Dr. N. von Jagie, in a number of cases of true asthma bronchiale has used successfully adrenalin in subcutaneous injection of 0.5 cc. of a 1-1000 solution for the purpose of cutting short the acute attacks. After 10, or at the most, 15 minutes, the paroxysm, which otherwise would continue for hours, was stopped. Any important increase in the systolic blood pressure was not observed from the above dosage. A girl, aet 13, who received in the hospital a number of such injections, showed two years later no sign of vascular injury. The writer considers the irritation of the sympathetic by adrenalin as the influential factor in the action of the remedy, and points to an analogy in the recognized good results from atropin (in its action upon the vagus). He believes that the irritant effect of adrenalin upon the sympathetic is accompanied by a decrease in vagus tonus. In young persons, without high degree of emphysema or disease of heart and blood vessels, the acute attack is promptly cut short. Whether a longer treatment of the affection with adrenalin may be introduced, the author does not know, but in view of the experimental adrenalinic arterio-sclerosis in animals, caution is necessary.—*Berliner klinische Wochenschrift*, 1909, No. 13.

**SOLIDIFIED CARBON-DIOXIDE IN THE TREATMENT OF CUTANEOUS
NEOPLASMS; WITH A REPORT OF SIXTY-THREE CASES
SUCCESSFULLY TREATED.**

BY

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(Read before the West Jersey Homœopathic Medical Society, Wednesday, August 18th, 1909, at Woodbury, N. J.)

It was Pusey, of Chicago, who, on seeing Dade's demonstration of the use of liquid air in the treatment of certain dermatologic affections, first suggested the use of carbon-dioxide as an able substitute. This was two years ago, and at that time Pusey began the use of "Carbon-Dioxide Snow," which he so named because of its resemblance to snow in its solidified state. Liquid air has been used by certain investigators, especially among them being Trimble, Dade and Tripler. Whether liquid air is more effective, however, than solidified carbon-dioxide is a question. Yet those who have been using carbon-dioxide contend that its use is just as efficacious, and I heartily endorse their opinion, giving it the preference to liquid air because of the ease with which it is prepared, the ability to obtain it readily, and its inexpensiveness as compared with liquid air.

Carbon-dioxide is easily obtainable in commerce, being held in tanks under atmospheric pressure of about 800 pounds to the square inch. It is the substance of commerce with which soda water tanks are charged in order to carbonate their contents. Its freezing point is about 90 degrees Centigrade, while that of liquid air is about 180 degrees Centigrade, so that solidified carbon-dioxide is about one-half as cold as liquid air. Both substances cause immediate freezing on being brought in contact with the skin's surface. As to there being any difference in the action of these two remedial agents I am at this time unable to state. There is produced a sudden freezing of the part, causing a marked inflammation or a total de-

struction of the tissues, producing a dry form of gangrene which in the course of two or three weeks is readily absorbed.

In using liquid air there is, of course, essential certain apparatus including the Dewar bulb and encasing, which are very easily broken. Liquid air is, as well, very volatile, and there is also more or less danger in handling it.

Ethel chloride and other freezing mixtures and sprays have as well been tried in using the freezing method in the treatment of cutaneous neoplasms. The result, however, was entirely unsatisfactory because of the fact that the freezing was entirely too superficial and of too fleeting a character.

Permit me now, if you will, to go into the details of the method of solidifying carbon-dioxide. A tank or drum of the "gas," as it is commonly called, is placed horizontally upon a shelf or table with its lower end slightly elevated. This is absolutely essential in order to get a free flow and for the fact that if there is any liquid in the tank it will gravitate to the controlling valve. The valve or opening cock should be thoroughly tried at first in order that one's hand may become accustomed to its action,—that is to say, whether it works easily or hard,—because if too much gas is permitted to flow at one time there is danger of blowing apart the receptacle in which the gas is being solidified and scattering the solidified particles in all directions. At the same time there is more or less danger of a loud report which is apt to frighten the patient.

Having now acquainted one's self with the working of the valve, which is at the upper extremity of the drum, a piece of chamois skin is taken and wound about the outlet three or four thicknesses; it can be handily fastened to the outlet with the use of a tightly applied bandage. Previous to applying the chamois skin (which seems to be the best material to use as it readily permits one to handle the substance, which, on account of its intense cold, makes it necessary that the hands be protected), a candle-stick or any other convenient cylindrical form may be placed at the mouth of the valve and the chamois skin wound around it and the valve together, and after thoroughly applied the candle-stick can be removed, leaving a hollow cavity in which the gas is to be liberated; the other end being held closed with the finger tips or can be held together or fastened in any way which suggests itself to the operator. Now, again, I say, great care and precaution must be taken not to permit the gas to escape too freely at first, or even later, for fear of breaking

the chamois skin retainer. The gas, then, is to be liberated slowly at first, producing a very loose form of snow, gradually becoming harder until it takes on the form of a dense chalk-like mass, slowly filling up the lumen of the chamois skin retainer. This can be determined by occasionally feeling the chamois skin retainer, and after being satisfied that the retainer has received its full limit of the solidified carbon-dioxide, the stop-valve is then securely turned off. I might mention at this point that it always seemed to me to be an advantage in gradually turning the stop-cock off and on until the proper amount of snow is obtained instead of leaving the stop-cock entirely open, as in this way it is more easily controlled and one can keep in better touch with the progress of the solidification. Dr. Pusey recommended the making of a small chamois bag, which was securely fastened around the outlet of the tank. Various tubes and other appliances have been used with, however, no greater success than with the method which I have just given.

The chamois skin is now to be carefully removed from the tube. I say "carefully" because of the fact that the chamois skin frequently is intensely hard and frozen stiff to the outlet, so that great care must be taken for fear of tearing the chamois skin retainer. If the mould has been properly made there will be seen, on removal, a rod shaped mass of a compact, snow-like substance. This substance can now be packed hard into a mould with a rod or pencil-end, or it can be taken in the hands (protected by chamois) and carefully moulded and packed into any shape with which it is desired to treat a lesion. It can as well, be whittled with a pen-knife into any desired shape from that of a very small point to a rod practically an inch square. Pusey has suggested the use, in handling the snow, of a pair of dressing forceps. This has not appealed to me as a very good method, so that I have always simply handled the snow, with several layers of chamois skin about it with my fingers.

It is always desirable to use a smaller piece of the snow than the size of the lesion to be treated for the fact that it usually freezes quite some distance beyond; yet I have not found it detrimental in the number of cases I have treated in freezing even beyond the affected areas. The lesion to be treated is to be picked up and held firmly between the fingers so that the lesion is free from the surrounding tissues. Where this is not

possible it has been my habit to protect the surrounding areas by chamois skin, cutting a small hole through the middle of the chamois just large enough to permit the lesion to be treated. In treating large lesions, such as pigmented moles or birthmarks, it is desirable to have the snow moulded into a rectangular shape, so that when adjacent areas are frozen they will closely correspond to one another.

Solidified carbon-dioxide has the happy faculty of being able to produce intense inflammatory reaction in the deeper tissues of the skin without completely destroying the overlying layers of the epidermis, so that frequently cutaneous cells are permitted to remain, which has a tendency to greatly decrease the scarring.

The results to be obtained in the use of the freezing substance depends on two factors—the duration of the freezing and the amount of pressure exerted. The stronger the pressure, of course, the deeper the tissues will be frozen, and vice versa; the pressure being varied according to the effect to be desired. By varying the time of contact and the pressure as well, one can get a range of action from that of the mildest to that of a very severe and marked reaction, producing a destruction of the integument.

Let us now take up a consideration of the application of the snow. Having, as previously stated, shaped the solidified mass into the desired form to be used, the point or part to be applied should be first wiped over with a piece of gauze to remove the fuzz or melting snow which has gathered about it. This having been done, immediate contact should be made to the part to be frozen, varying the application from 10 seconds to that of one or two minutes, depending upon the depth of the lesion to be treated. For the very superficial conditions usually 10 to 30 seconds seems to suffice including the treatment of pigmentary and vascular moles and the like. For the treatment of the deeper structures one to two to three minutes at times is demanded, the operator varying the pressure from light to medium to heavy. In treating about mucus membranes or about the eye there should be protection with chamois skin or absorbent cotton or gauze, and in this way unnecessary pain and reaction is avoided. There should be absolutely no dressing follow the treatment of any kind. Within a second after the application of the snow the epidermis is frozen intensely white; in fact, it takes on the same appearance as the solidified

mass. In from 5 to 10 seconds more it is quite hard and solidified. The working rule seems to be that it takes the area frozen twice as long to thaw out as it did to freeze. During the freezing there is but little pain, the patient being frequently unable to determine whether the sensation is one of intense heat or burning or whether it is that of cold. I have found it advantageous frequently in treating deeper lesions to permit them to thaw out and then to freeze again for several times. After permitting the lesion to thaw out there is a slight stinging sensation which may last from 5 or 10 minutes to that of an hour or more. After the thawing takes place there is a slight moisture of condensation present and a slight erythema about the part frozen. In from 10 to 15 minutes there results a wheal, which, in the course of half an hour, becomes well developed. In cases which have had persistent freezing there will appear, in from eight to ten hours, a markedly erythematous area with vesiculation of the epidermis. Mild freezings usually are absorbed in about a week without even crusting or any visible scar whatsoever. Where the lesion has been frozen from 15 to 30 seconds there is apt to appear a thin crust which, in the course of a week or ten days, will disappear with practically no scarring of any account. Where there has been marked freezing,—say from one-half to one or two minutes,—there follows a dense bullae which, in the course of a week or ten days, is followed by a dry scab which remains adherent for from two to three weeks. At the end of this time the scab separates, leaving no ulceration and a fine, superficial, smooth, white scar which is neither elevated nor depressed but on a level with the skin, and not contracted.

We are now ready to take up the therapeutical usages of the solidified carbon-dioxide. In my report of 63 cases successfully treated I shall give you my experiences in treating some of the more important neoplasms which have come under my observation including those in my private practice, those referred to me by physicians, and cases treated from my dispensary service from the West Philadelphia General Hospital, the House of Detention for Juveniles, and the Hahnemann Hospital Dispensary. I have, as well, included in my report several cases which were not neoplasms,—being, however, atrophic or degenerative in character.

In solidified carbon-dioxide in the treatment of the conditions to which I shall shortly refer it must be admitted that we

REPORT OF SIXTY-THREE CASES OF CUTANEOUS NEOPLASMS SUCCESSFULLY TREATED WITH SOLIDIFIED CARBON DIOXIDE.

LESION.	AGE.	No. OF APPLICA- TIONS.	DURATION.	PRESSURE.	TIME BE- TWEEN AP.	REACTION.	RESULTS.
Rodent Ulcer	63	4	5 min.	Firm.	2 weeks.	Marked.	Fine white scar. Slightly depres.
Chloasma	40	1	15 sec.	Light.		Slight.	Smooth white area.
Naevus Spilus	18	1	10 sec.	Light.		Slight.	Smooth white spot.
Papilloma	42	3	30 sec.	Firm.	10 days.	Slight.	No trace of scar.
Deg. Cebaceous Cyst ..	64	4	3 min.	Firm.	8 days.	Marked.	Smooth white scar.
Morphea	18	1	30 sec.	Light.		Slight.	Smooth white spot.
Naevus Pilosus	27	1	15 sec.	Medium.		Slight.	Few hrs. smooth white area.
Keloid Cystic Degen. ...	42	5	1-3 min.	Firm.		Marked.	Smooth white scar.
Naevus Lipomatodes	36	1	20 sec.	Medium.		Slight.	Smooth white spot.
Papilloma	21	1	30 sec.	Firm.		Slight.	Smooth white spot.
Tattoo Marks	21	1	10 sec.	Light.		Slight.	Smooth white spot.
Papilloma	21	1	30 sec.	Firm.		Slight.	Smooth white spot.
Naevus Spilus	14	1	5 sec.	Light.		Slight.	Smooth white spot.
Xanthoma	37	1	30 sec.	Medium.		Marked.	Smooth white area.
Tattoo Marks	17	1	15 sec.	Light.		Slight.	Smooth white spot.
Naevus Vascul. Simplex .	6	1	10 sec.	Firm.		Marked.	Smooth white area.
Naevus Pilosus	16	1	20 sec.	Firm.		Marked.	Smooth white area. Hairs destyd.
Angioma Cavernos	24	1	30 sec.	Medium.		Slight.	White covering over area. Angioma.
Papilloma	14	2	40 sec.	Firm.	7 days.	Marked.	No trace of scar.
Telangiect.	42	1	30 sec.	Medium.		Slight.	White area.
Naevus Spilus	40	1	10 sec.	Light.		Slight.	Smooth white area.
Telangiect.	20	1	10 sec.	Light.		Slight.	Smooth white area.
Tattoo Marks	14	1	10 sec.	Light.		Slight.	Smooth white scar.
Epithelioma	42	4	90 sec.	Firm.	2 weeks.	Marked.	Smooth white scar.
Chloasma	20	1	10 sec.	Light.		Slight.	Smooth white area.
Paget's Disease	39	3	3 min.	Firm.	3 weeks.	Marked.	Smooth white scar.
Pre-Epith. Pap.	62	2	2 min.	Firm.	3 weeks.	Marked.	Smooth white scar.
Naevus Pilosus	43	2	20 sec.	Firm.	3 weeks.	Marked.	Smooth white area.
Pre-Epith. Pap.	48	3	90 sec.	Firm.	2 weeks.	Marked.	Smooth white area. Few hrs. rmd.
Naevus Spilus	31	1	15 sec.	Light.		Slight.	Smooth white scar.
Telangiect.	30	1	10 sec.	Light.		Slight.	No scar.
Papilloma	16	1	10 sec.	Light.		Slight.	Smooth white scar.

LESION.	AGE.	No. OF APPLICA- TIONS.	DURATION.	PRESSURE.	TIME BE- TWEEN AP.	REACTION.	RESULTS.
Naevus Vascu. Simplex .	18	2	20 sec.	Light.	2 weeks.	Slight.	Smooth white scar.
Pre-Epith. Pap.	76	3	2 min.	Firm.	2 weeks.	Marked.	Smooth white scar.
Naevus Pilosus	18	3	30 sec.	Firm.	2 weeks.	Marked.	Smooth white area.
Pre-Epith. Pap.	60	2	2 min.	Firm.	3 weeks.	Marked.	Smooth white scar.
Naevus Lipomatodes . .	47	1	45 sec.	Firm.	2 weeks.	Marked.	Smooth white spot.
Xanthoma	42	2	30 sec.	Firm.	2 weeks.	Marked.	Smooth white area.
Telangiec	30	1	10 sec.	Light.	2 weeks.	Slight.	Smooth white area.
Naevus Spilus	18	1	20 sec.	Light.	2 weeks.	Slight.	Smooth white area.
Epithelioma	62	5	3 min.	Firm.	3 weeks.	Marked.	Smooth white scar.
Pre-Epith. Pap.	52	3	3 min.	Firm.	3 weeks.	Marked.	Smooth white scar.
Chronic Ulcer Leg	47	4	2 min.	Firm.	2 weeks.	Marked.	Smooth white scar.
Chloasma	20	1	15 sec.	Light.	2 weeks.	Slight.	Smooth white area.
Telangiec.	24	1	15 sec.	Light.	2 weeks.	Slight.	Smooth white area.
Shot Stains	10	1	10 sec.	Light.	2 weeks.	Slight.	Smooth white scar.
Naevus Pilosus	36	1	10 sec.	Light.	2 weeks.	Slight.	Smooth white scar.
Tattoo Marks	21	1	10 sec.	Light.	2 weeks.	Slight.	Smooth white scar.
Telangiec.	37	1	15 sec.	Light.	2 weeks.	Slight.	Smooth white area.
Tattoo Marks	20	1	15 sec.	Light.	2 weeks.	Slight.	Smooth white area.
Naevus Spilus	34	1	10 sec.	Light.	2 weeks.	Slight.	Smooth white area.
Lupus Erythem.	42	3	30-60 sec.	Firm.	3 weeks.	Slight.	Smooth white point.
Naevus Verucos.	41	2	20 sec.	Medium.	3 weeks.	Slight.	Smooth white scar.
Papilloma	47	2	20 sec.	Medium.	2 weeks.	Slight.	Smooth white scar.
Naevus Vas. Simp.	3	1	40 sec.	Firm.	2 weeks.	Marked.	Smooth white scar.
Telangiec.	24	1	10 sec.	Light.	2 weeks.	Slight.	Smooth white spot.
Shot Stains	14	1	10 sec.	Light.	2 weeks.	Slight.	Smooth white spot.
Naevus Verucos.	54	3	30 sec.	Medium.	2 weeks.	Marked.	Smooth white spot.
Lupus Erythem.	30	3	30-60 sec.	Firm.	2 weeks.	Marked.	Smooth white scar.
Papilloma	14	2	30 sec.	Firm.	2 weeks.	Slight.	Smooth white scar.
Rodent Ulcer	53	1	3 min.	Firm.	2 weeks.	Heavy crusting	Skin level.
Naevus Lipomatodes . . .	24	1	30 sec.	Firm.	2 weeks.	Slight.	Smooth white spot.
Telangiec.	37	1	10 sec.	Light.	2 weeks.	Slight.	Smooth white spot.

have more than an efficient remedial substance which must certainly take the place of many escharotics now in common usage, leaving their marked scars with their ever-ready tendency to want to hypertrophy or degenerate. I refer specially to the successful method of treatment which this routine assures in the treatment of birth-marks and naevi, whether they be pigmentary or vascular, and, as well, to the erythematous variety of lupus and epitheliomas, especially of the superficial type, rodent ulcers, telangiectasies, pre-epitheliomatous concrete senile seborrhœa, chronic ulcers, tattoo marks, chloasma, papilloma, xanthoma, and the like, all of which have come under my personal observation and treatment during the past two years.

Solidified carbon-dioxide has at last given us a therapeutic agent of decided value in the removal of large birth-marks—"Port Wine" marks, if you please—leaving practically no scarring of any account, dependent, however, on the depth of the lesion, usually being quite superficial. I have treated these lesions from 10 to 20 seconds. Where the area has been large, treating no more than a half to three-quarters of a square inch at a time; scarring, as I say, having been very slight and in some cases practically none—especially where I have not used the snow for more than 10 to 20 seconds. Where I have had to use it for 30 seconds or longer there has been a fine, smooth, white scar which is practically of no consequence being even with the skin and making a decided improvement in the patient's condition. Where I have had to treat a case of the cavernous angioma, being rather deep, I hesitated to treat the structure with the hope of removing it entirely because of the fact of its close connection with larger vessels, so that I satisfied myself by merely treating the skin over the naevus with very mild applications, usually not longer than 20 seconds, and in that way have been able to cover over the birth-mark with a white skin,—the deep bluish discoloration not showing through the white epidermis. I have had to treat 16 cases of the pigmentary form of naevi including those which were hairy and non-hairy, those which were verucose and those which were hypertrophic. In all of these cases treated more than one application in most cases not being necessary; treatment was successful, scarring practically void in some and in others very slight, depending entirely upon the size and depth or enlargement of the mole. It is as well to note that the hair follicles were practically destroyed with few exceptions, and where one

or two hairs remained they were easily removed by electrolysis.

Six cases of papilloma are included in my report which were treated in varying time from 15 to 30 seconds, and in some cases two or three applications having been necessary; the duration of the application varying from 10 seconds to 30 seconds; one case especially having been located on the mucus surface of the under lip. This case was somewhat resistant to treatment at first because of insufficient freezing on account of the patient's disbelief in the process, so that electrolysis was resorted to with slow but gradual reduction in size. The patient again became alarmed, thinking that he was having a cancerous condition, and decided that the freezing process was more to his liking, so that freezing was again taken up, and on two further applications of 60 seconds each caused a disappearance of the lesion entirely with practically no scar whatsoever.

A degenerated sebaceous cyst in a patient aged 64 years was referred to me for treatment, having received four applications of three minutes each with firm pressure, eight days apart, with the result that the lesion healed over with a smooth, white scar.

Another case mentioned in my report, a keloid, which was the result of the removal of an epithelioma by caustic potash which had later on hypertrophied and then undergone cystic degeneration; this patient, whose age was 42 years, the lesion being upon the upper lip, received five applications of from one to three minutes each of firm pressure and ten days between applications. The result was a smooth, white scar practically not noticeable and perfectly level with the skin.

I have treated two cases of xanthoma,—one in a patient aged 37, and the other in a patient aged 42 years. The first one responded after one treatment of 30 seconds with medium pressure, and the latter one two treatments of 30 seconds each with firm pressure, two weeks apart; both without scars—simply smooth, white areas resulting.

Lupus erythematosus, of which two cases come under my report,—one in a patient aged 42, another in a patient aged 30, both upon the face,—having received three treatments in each case of 60 seconds, two or three weeks apart, depending on the reaction which took place, and with firm pressure.

In making the statement of the number of treatments, I refer entirely to the number of treatments which a single area or

lesion receives, and not to the total number of treatments which the patient may have had for a circumscribed area.

I have had two cases of epithelioma and two of rodent ulcer, both healing entirely with fine, smooth, white scars.

Paget's disease of the nipple, chronic ulcer of the leg, shot stains, tattoo marks, and the like are all mentioned in my report, having been successfully treated—the number of applications given, duration, pressure, etc., all being carefully noted.

In conclusion, permit me to state that I have attempted to give a brief resumé of solidified carbon-dioxide, its method of preparation, its application and its results, and would heartily commend it in the treatment of those cutaneous manifestations which I have mentioned.

I am at present making special investigations in the treatment of the atrophic and ulcerative skin conditions, and I hope to have the pleasure of giving you a report of my investigations along this line of dermatologic research at some future time.

Furthermore, permit me at this time to thank you for the honor conferred by this privilege and the pleasure extended on addressing your very worthy Society.

THE PROTECTION OF WOUNDS AGAINST INFECTION WITH DERMAL GERMS.—The *Berliner Klinische Wochenschrift*, 1909, No. 17. Prof. Konig distinctly disapproves the washing or preoperation cleansing with fluids, aseptic or antiseptic. In all operations with the exception of perineum and scrotum, he paints the field with iodine tincture until it becomes deep brown in color. By this method, the superficial cutaneous germs are killed or hindered in development, and the deep-lying microbes are not let loose. A combination of the fluid cleansing and the iodine application is not permissible, for the tincture of iodine following such antiseptic washing will develop eczema, etc., in a skin where the upper layers have been scrubbed off. After operation and the suturing of the wound, the line of incision is painted over with iodine tincture and protected by dry compresses. The procedure is along the lines of the ancient axiom: "Let sleeping dogs lie." Of 251 cases treated in this manner, 3 alone showed a somewhat delayed healing.

ARTHRITIS DEFORMANS.

BY

FREDERICK J. WALTER, M. D., ROSWELL, NEW MEXICO.

THAT intestinal indigestion is the common contributing cause of arthritis deformans is the opinion of the writer after an observation of over eighty cases, diagnosed as such, in Sanitarium work in the state of Indiana.

Perhaps the most constant symptom was the presence of gas and evidence of amylaceous indigestion in the small intestines and the large intestines containing the products of putrefaction. This led the writer to test for putrefactive alkaloids, purin-bodies, cystin, urates, oxalates, and leukomains, in the urine of these patients with the result that they were found without exception. Tenderness over the liver (with perhaps gall stones) and pain across the back below the shoulder blades were common symptoms. These patients usually have a history of these disturbances going on for years and the joint involvement developing insidiously and with quiescent periods, never responding to treatment medicinal, mechanical or baths because intestinal disturbances are so frequently overlooked and when found so rarely reached. The tenderness of the joints observed during the active stage of the disease was aggravated by cathartics, which would subside in a few hours; no doubt showing an increased absorption from the mucous membranes during the period of activity within the bowel. The presence of liver congestions should not lead one from attention to the diet and elimination with treatment directed towards the primary bowel indigestion. Tonics and massage are worthless ultimately, unless we consider the case in its entirety.

An interesting feature is the presence of nervous phenomena which has caused many writers to place this disease with the neurologist alone. The history of the majority of these cases gave us in women; household cares and nerve tension, with perhaps society lives in some as contributing to alimentary stasis. In the few men attacked it was from the nerve racking business cares and attention to business immediately after eating. A diet free from grease and rather coarse foods should be installed. Attention to a change of scene and relaxation of the nervous system is highly important and this alone has done

more than all other measures combined. Gastric digestion must go on perfectly to avoid imperfectly digested food requiring gastric digestion, entering the intestines. Tyson and some others say that digestive disturbances are not the exciting cause of arthritis deformans which is true, though as a contributing cause it seemed to lead in this collection of cases. How utterly worthless all forms of treatment have been is evident to all of us who have directed effort towards the joints and along the line of tonics. With elimination, nutritional, dietetic and nerve reconstructive methods of procedure in view our results have been much better.

VENTRAL HERNIA: AND A PLEA FOR CONSERVATISM ENTAILING CUTTING THE ABDOMINAL WALL.

BY

C. FLETCHER SOUDER, M. D., PHILADELPHIA.

(Read before the Germantown Homœopathic Medical Society, June 21, 1909).

As ventral hernia is a result of an operation it is difficult to treat the subject as one could other injuries or diseases without giving the impression that an effort is being made to reflect upon surgeons or upon their work. My intentions are not to criticise but to endeavor to ascertain the true state of affairs and facts.

The medical profession has won some of its greatest laurels and triumphs in the field of surgery; and it is oftentimes impossible to determine the nature, extent and seriousness of diseased conditions occurring within the abdomen without an operation. But it is advisable to consider well before cutting through the abdominal wall as the after effects may prove to be more serious and worse than the original trouble.

I rarely have an opportunity to determine the necessity for an operation; and I only see the cases after an operation has been more or less unsuccessful; so I can only speak of conditions as I have found them; and leave it to others more familiar with many features of the subject for further enlightenment. No one is more anxious than myself to learn what prospects operations offer for ventral hernia as a large percentage of the cases I have met with had been operated upon one or more times for ventral hernia; and all claimed that they were in

a worse condition after each succeeding operation. Conditions were so unfavorable in the majority of instances that I do not see how any measures could be entirely successful. I have hesitated to advise another operation even where conditions might be favorable; and where other treatments did not seem to me to be indicated.

The principal objects of this paper are:

First. To learn the proportion of cases in which the wound fails to heal promptly; and finally terminates in ventral hernia. Also to learn the frequency of stitch abscesses, and their results.

Second. To determine whether the percentage of ventral hernia is not larger than given in reports.

Third. To prove the serious nature of ventral hernia.

Fourth. To present the course ventral hernia follows and to give an account of the conditions met with in numerous cases.

Fifth. To find out whether many cases of ventral hernia are not now hopelessly incurable.

Sixth. To learn when conditions are favorable or unfavorable for another cutting operation.

Seventh. To gain information as to what can be done to prevent, check, retard, benefit or cure these distressing conditions.

The ill effects so far met with in my practice as a result of operations on the abdominal wall are: Wounds have sloughed and discharged for months or years and finally terminated in ventral hernia. Stitch abscesses have developed months or years afterwards and some of them terminated in ventral hernia. Patients have complained of constant distress afterwards, due to some portion of the abdominal organs becoming attached to the wound or stump during the healing process.

Reports state that from 5 to 15 per cent. of abdominal operations result in ventral hernia. Were these reports taken at the time patients left the hospital or after three months as generally claimed? A surgeon informed me that the plan followed at the hospitals with which he was associated was to wait about three months then to pronounce the case cured, unless the patient returned in the meantime with ventral hernia. Of what value are such reports? Ventral hernia in a large percentage of cases does not develop for months or years after the operation and it may occur at any time. A Western physician

claims that he has examined over 10,000 cases of hernia and that the proportion of ventral hernia exceeded all other kinds combined excepting the inguinal variety.

Should ventral hernia develop, its possible or probable course is: The hernia opening may remain small and not involve more of the incision but the tendency of a hernia is to increase in size and grow worse and, as frequently occurs, include the greater portion or all of the incision. Picture to yourselves a case where the entire incision of perhaps five or more inches has broken down, and imagine the size of the gap and the amount of abdominal contents which will protrude and the difficulty that will be experienced in retaining such a condition. I have seen several cases where the protruding mass was as large as a cocoanut or an average sized head, and most of them had become irreducible. The incised muscles may atrophy and become so completely absorbed as to be no thicker than the covering on a toy balloon, so much so, as not to enable one to determine where the hernia began or left off as there was no distinguishable border. I have seen several cases where the abdominal wall of right side was almost completely absorbed; these occurred after operations for appendicitis.

As conditions are usually less favorable after each succeeding operation, can there be any assurance that another operation will be more successful than former ones? When are conditions favorable or unfavorable?

Are there other generally known measures which will prevent, check, benefit or cure ventral hernia? Are not many cases of ventral hernia now incurable? And will they not have to endure continued distress, annoyance, suffering, danger and more or less disability the balance of their lives?

I am frequently consulted by physicians and others as to what can be done for ventral hernia by the injection treatment. While I have had abundant opportunities to test it, in the majority of cases, the hernia opening was too large, being several inches in length, or atrophy of the incised muscles was so pronounced and covered large surfaces that I did not feel warranted in making an attempt. Where it has been employed the conditions have been greatly improved or the opening closed. It will be of assistance in strengthening, repairing and toning up the weakened wall. I feel that it has a future in these cases, especially if employed early and before extensive damage has been done, but not in irreducible cases.

A drawback that is difficult to overcome is the reluctance or indifference of patients to seek advice until after the condition has become unmanageable or far advanced.

I depend on the injection of from 5 to 10 minims of alcohol unless a more irritating and astringent fluid be required.

General directions are to deposit fluid where irritation is desired. There will be infiltration in about two days afterwards covering a space of a silver half-dollar, but a larger surface can be included at one insertion by swinging needle around and depositing the fluid at different angles. Take care to have end of needle free; and place finger over it on the outside, so as to be able to determine accurately where end of needle is and its surroundings. Repeat treatment when reaction has disappeared until the parts are sufficiently strengthened or entirely closed. An occasional treatment may be required afterwards, especially where atrophy exists as the foundation is poor.

THE TREATMENT OF BURNS.—Renner (*Ctrbltt. f. Chirurgie*, No. 30, 1908). The author wishes to recommend for the treatment of burns a powder which was found by him to be very valuable, in the course of several years, in many hundreds of cases. This powder consist of bismuth subnitrate, one part, and kaolin, pulverized, two parts. With this powder every half-way recent case of burn is dressed by him, irrespective of the degree of the burn. The wounds are thoroughly cleaned in the first place, then the bismuth powder is dusted on thickly, and over this comes a single layer of sterile absorbent gauze. Finally, a thick layer of sterile cotton is applied, and everything is fixed with a bandage. The dressings must be removed every day as long as there is an active secretion; at this time local baths are given, or full baths in the case of extensive burns. The chief effect of the powder is the excellent dessication it produces, under almost complete avoidance of infection. Owing to this pronounced dessication the formation of the vesicles is limited in superficial burns (vesicles which have already formed are to be removed); in case of deep burns a dry black scab appears; the desquamation of these dry scabs being hastened by the administering of baths, as mentioned above. The patients suffer less pain, have not so much fever, and are but slightly troubled by the secretion. In burns of the first and second degree the wound is often covered with a thick, solid crust after one or two dressings, providing an excellent protection for the newly developing skin. When the crust begins to be shed, or when there is reason to suppose that healing has taken place underneath, the application of boric-acid-lanolin during 24 hours is sufficient to effect the removal of the crust. The occurrence of keloid-like cicatrices would seem to be less common under this form of treatment.

CANTHARIS.

BY

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GENERAL ANALYSIS.

THE *Spanish Fly* acts most prominently upon the skin and mucus membranes, the inner and outer human coating, and upon the urinary and sexual organs. And its sphere of usefulness is almost, if not quite, limited to affections of these organs.

Upon the skin it produces an eruption of large vesicles, which contain an excoriating watery fluid. When these vesicles break, their contents cause an irritation of the contiguous parts, with burning pains.

Upon the mucus membranes it produces an intense irritative inflammation with bloody or slimy discharges. An inflammation that tends to epithelial destruction.

The pains accompanying these inflammations with raw mucus surfaces are of an intense burning character, and, in the neighborhood of the sphincters vesicae and recti, great tenesmus exists from the blind efforts of these peristaltic exits to get rid of the irritation within their grasp.

The skin symptoms point to erysipelatous inflammations like those found under *apis mellifica*, *rhus tox*, *belladonna*, *lachesis* and *sulphur*.

The mucus membrane symptoms point to genito-urinary troubles as found in cystitis, gonorrheal or simple, associating it with *aconite*, *cannabis sativa*, *mercurius corrosivus*, *colocynthis*, and *hyoscyamus*.

Also to *dysentery*, associating it with such drugs as *mercurius vivus*, *mercurius corrosivus*, *aconite*, *capsicum*, *colocynth*, *sulphur* and *arsenicum*.

THERAPEUTICS.

Erysipelas. Preferably beginning on the dorsum of the nose and spreading to the right cheek. There are large vesicles which break and discharge an excoriating fluid which starts new foci of inflammation burning pains.

Cystitis and *gonorrhea*. An intense acute inflammation

with persistent and violent urging to urinate, the urine is passed only in drops and feels like molten lead passing through the urethra. Burning on urinating, with pain in the small of the back.

This extreme *tenesmus vesicae* is always present, there is chordee, the discharge is yellow or bloody, excessive sexual desire. Generally follows *aconite*.

Analogues; *aconite* in the beginning at the congestive stage, mental and physical unrest, anxiety, constant burning distress in the urethra.

Cannabis sativa; very similar to cantharis, but the symptoms are milder. *Cantharis* has more tenesmus, cannabis more burning and smarting. There is purulent discharge, glands and prepuce dark red and swollen, spasms vesicae, gonorrhea in the female with mucus, purulent discharge.

Mercurius corrosivus; high grade of inflammation with violent symptoms, tenesmus, frequent urination with burning, throbbing and stinging, meatus highly sensitive to touch, greenish, purulent discharge.

Kali bichromicum; after passing urine it seems as though a drop were remaining high up in the urethra, which he is unable to expel, this drop burns and worries him a long time, and efforts to expel it are fruitless.

Natrum muriaticum; burning and cutting in the urethra after micturition, thin watery discharge; after nitrate of silver injections, painless discharge of pus with urine.

Argentum nitricum; urethral soreness, with cutting pain extending to the anus, orchitis.

Copaiva; violent smell of the urine, purulent discharge, constant desire, nettle-rash.

Cubeba; irritation of urethra, increased urethral secretion, cutting and constriction *after urination*, hæmaturia.

Clematis erecta; pain most severe at the commencement of urination, patient cannot pass a drop of urine for a long time, finally the flow is established when the pain ceases.

Sepia; gleet, "morning drop," chronic mucoid painless discharge.

Sulphur; burning pain near the meatus which is deep red, chronic cases. Gleet with tendency to induration at the meatus, urethral itching, divided stream.

Terebinthina; strangury, urine *smoky*, aching, drawing pains, chordee, gleet, gonorrheal rheumatism.

Thuja; thin greenish discharge, scalding urination, warts and condylomata about the genitals, after suppressions by injections, complicated by orchitis, rheumatism or prostatitis.

Pulsatilla; orchitis after gonorrhea, thick yellow, or yellowish green, bland discharge, scanty urine, gonorrhea in females.

Conium; orchitis with indurated swelling of testicle.

Hamamelis; much soreness and enlargement of the scrotal veins.

Capsicum; pricking, burning, cutting pains, with sensation of warmth in the urethra, white creamy or thick purulent discharge.

Dysentery; discharges look like meat washings, (water in which raw meat had been washed), they are of red water with skinny particles floating in them, there is intense tenesmus both rectal and vesical, but more markedly vesical; (both equally—*mercurius corrosivus*; rectal alone *mercurius vivus, mix vomica, sulphur*). Severe cases with symptoms of collapse.

Analogues, See: *Mercurius*.

Burns and scalds. Do not forget cantharis after burns and scalds, when blebs form on a yellowish base, and there are intense burning pains, and perhaps urinary symptoms.

Sexual organs. The drug produces an intense congestion of these organs, with great sexual excitement, amounting in extreme cases to a mania. This action will often suggest it in men, especially in gonorrheal inflammations, where the erections are violent and painful, and in women with symptoms of nymphomania, especially with bladder symptoms, and the menses are black, early and profuse.

A peculiar symptom of cantharis, referable to the eyes, is: "Objects look yellow;" this symptom may often be useful in obtaining a totality.

CONDENSED RESUME.

PAINS, *Burning*; compare (1) combustive remedies; *aconite, arsenicum*, etc.; and (2) Excoriating remedies; *mercurius corrosivus, kreosote, sulphur, psorinum*. (3) Destructive remedies; *mercurius corrosivus, lachesis, crotalus, apis*.

Skin; Vesicular inflammations; erysipelas, burns, scalds.

Mucus Membranes; Violent inflammations, with tenesmus of sphincters, and bloody discharges; the more extreme the symptoms, the greater the pain; the more violent the tenesmus

the more is *cantharis* indicated; compare ACONITE, *arsenicum*, *mercurius corrosivus*, etc.

Sexual Organs; Congestion and excitement. *Priapism*. *nymphomania*.

Compare, when congestion, *cantharis* and *sulphur*.

Compare, when nervous, *hyoscyamus*, *murex*, *platina* and *phosphorus*.

Vesical Spasms: Compare *Coloc.*, *hyos.*, *merc. corr.*, *bell.*, *mag. phos.*, *nux vom.*

PHENOL-PHTHALEIN.

BY

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(Read before the West Jersey Homœopathic Medical Society).

THIS valuable addition to our pharmaco-mechanical therapeutics has been long in use as a test in chemical laboratories. It yields a fine red color in the presence of an alkaline solution which color disappears on the addition of an excess of acid. Hence, its value as an indicator in volumetric analysis. It is a white crystalline powder which is soluble in alcohol, but sparingly so in water, and is devoid of any taste.

The discovery that it possessed physiological powers was entirely an accident. It had been ordered by the German Government to be added to oleomargarine, so that the latter could be easily detected. The Austrians then adopted the same method and also required its addition to certain inferior Hungarian wines for their detection for purposes of revenue. The people who drank these wines suffered with loose bowels, which would cease as soon as the wines were stopped. This led to its physiological investigation.

It was discovered that the drug had no appreciable action on the stomach, as would be surmised from its behavior in an acid medium but that in the alkaline fluids of the intestines, it became converted into a sodium salt, pheno phthaleinate of sodium, which is soluble and markedly increases the amount of liquid in the intestinal tract. It is, however, less soluble than either the sulphate of sodium or the sulphate of magnesia, and hence produces less watery stools than they do.

It accelerates the peristalsis of the large intestine first, and later and in larger doses empties the small intestine also.

There is no apparent irritation of any part of the intestinal tract. Being a phenol derivative the question naturally arises as to its possible liberation and a danger of phenol poisoning. No such effects have been observed and it is found that the sodium salt formed in the intestine has but little diffusibility, and it is but very slightly absorbed. Eighty-seven per cent. of the dose swallowed is excreted via the bowels and very little ever reaches the kidneys. It has been given to cases of advanced Bright's disease in repeated and large doses without any aggravations, and with no effect upon the urine as shown by analysis.

Its action on blood pressure has been tested with the sphygmomanometer, and it is found to produce even less reduction of blood pressure than the sulphate of magnesia, and that what reduction there is passes away quicker. It is, therefore, perfectly safe to administer in heart troubles or other conditions where depressing influences are dangerous.

The stools produced by this drug are soft, rarely liquid, and almost absolutely without pain, or discomfort. No colic, griping, gastric disturbances or nausea. It does not depend upon bile for its action since it will evacuate the bowels in jaundiced conditions.

The time of action of the drug varies with the dose and conditions of the individual. Small doses move adults in from 10 to 14 hours. Large doses in from 3 to 6 hours.

The doses required vary from Gr. $\frac{1}{4}$ for children up to Gr. 15 for adults with obstinate constipation, or bed ridden patients. The average dose for adult is from two to three grains. One of its advantages is that the same dose seems to always produce the same effect in the same individual, and that it is not found necessary to increase the dose when once the proper amount is found for a given individual.

The fact that this drug is tasteless, that its doses are so small compared with most other evacuants, and that it leaves no sluggishness or dryness of the rectum or other after bad effects, makes this the most desirable bowel evacuant we now possess. The only drawback to its use, as an almost universal pharmacomechanical evacuent, is the fact that one has to determine by trial the best dose for each individual. This having been determined it is possible to use it with precision to produce any

desired effect from a simple laxative to a complete evacuation of the intestinal tract.

As an illustration I will cite a case of a lady about 35 years of age who had been a sufferer for fifteen years with an obstinate constipation. She had tried all kinds of treatment, old school and new, but without relief. Dieting seemed to make no difference. Enemas soon lost their usefulness, all purgatives required increasingly large doses. Two years ago I gave as a trial dose five grains of phenol-phthalein. Her bowels were running away all the next day. Reducing the dose as further effect was needed, it was found that one and one-half grains was sufficient, taken at night, to produce one free movement the following forenoon. On the second day there would be another easy evacuation. Now, after two years of use at longer and longer intervals, she only needs to repeat the dose about once in two weeks. She seems practically well. I have numerous other records to corroborate these results. I do not cite this case as an ideal way to overcome constipation, but simply to illustrate the bowel effects and the possibility of long-continued use without increasing dose or apparent bad effect. I have also used the drug in eight grain doses for the complete emptying of the bowels preparatory to abdominal surgery, to which cases it seems to be peculiarly suitable, since its action seems to persist to the extent of promoting peristalsis on the following day.

In a classification of intestinal evacuants, this drug is placed with the salines. These drugs are the purest examples of pharmacomechanics. They have but a limited pharmacodynamic effect.

Magnesia sulph., Epsom salts, is not used as a homœopathic remedy for diarrhœa. The magnesia *ion* being most effective in magnesia carb. The natrum sulph., Glaubers salt, has a limited pharmacodynamical use mainly in chronic diarrhœa with loose morning stools.

The pharmacomechanical side is well marked. Not only are they of use for a distinct mechanical object, that of forcing the bowel to empty itself, comparable to the use of enemata, but they accomplish it in a purely mechanical way, by increasing the volume of liquid in the intestinal tract.

As is well known, though peristalsis of the bowels is a very complex physiological process, it may be increased in only two ways, either by measures directly stimulating the efferent nerve

chain, or by such as swell the volume of the intestinal contents. The central nervous system has but a limited control over peristalsis. Fear and fright and sudden nervous shocks may cause loose bowels, and melancholia is often associated with constipation. The only drugs so far recognized which directly stimulate the efferent nerve chain are physostigma, and pilocarpine.

All other intestinal evacuants increase the volume of intestinal contents. The salines do this with very little if any irritation, and, by the most easily understood mechanical process. The laws of osmosis are here in full play. The walls of the intestine act as a semi-permeable membrane, which allows the passage of fluids into the intestine, but does not allow the saline to pass out, so that a powerful current is established of fluids into the intestinal canal. The amount and force of this current is dependent upon the amount of concentration of the saline used.

It has been generally accepted that phenol-phthalein produces its loose bowels in the same manner. It is, however, very hard for me to believe that a grain and one-half is capable of producing osmotic action sufficient to account for the action in the case cited above, so that it seems probable that other explanation must be found to explain its purgative action.

Like many other recent discoveries, phenol-phthalein has been made the active ingredient of numerous proprietary products. The following is only a partial list:

Purgen Tablets containing $1\frac{1}{2}$ grs.

Phenolax (Upjohn) Tablets contain 1 gr.

El Zernac Laxative, Chocolate Tablets, gr. $1\frac{1}{2}$.

Epurgo, Dr. Dengue.

Thalophen, Norwich Pharmacal Co., 1 and 2 gr. tablets.

All of these make up their bulk of five grains with sugar or chocolate and generally have wintergreen or some other aromatic, and various coloring matters.

There is no advantage (except to the proprietors) of any of these preparations; in fact, there is a distinct disadvantage inasmuch as tablets become too hard to dissolve promptly and so may fail to act. The dealers recognize this and direct that the tablet be carefully masticated. There is no need for anything to disguise the taste as it has none. It is unquestionably most effective administered as a dry powder.

SYSTOLIC MURMURS IN THE AORTIC AREA, WITH SPECIAL REFERENCE TO THAT OF AORTIC STENOSIS.

BY

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(Read before the Philadelphia County Society, in behalf of the Wednesday Night Medical Club).

IN one's clinical experience it is frequent that a systolic murmur in the aortic area presents itself, but in all cases it is not an easy matter to properly interpret the same, or, in other words, to arrive at a definite conclusion as regards its etiology. It may be said that a diastolic murmur heard in the conventional aortic area is pathognomonic of aortic insufficiency, but a systolic murmur, heard in the same position is far from being pathognomonic of an aortic stenosis. Hence, the reason for many errors in diagnosis that are made in respect to aortic stenosis; that is, a systolic murmur in the aortic area positively diagnosed as a stenosis. It is upon this flimsy evidence that we see many such diagnoses made, and leads one to the belief that aortic stenosis is a common lesion, when, in fact, a true uncomplicated such lesion is a rare one.

Cabot makes the statement that in two hundred and fifty autopsies upon subjects of valvular disease of the heart in general, there was not one uncomplicated case of aortic stenosis. Satterthwait claims to have seen but one case in sixty-five autopsies; this rarity is also acclaimed by such clinicians as Broadbent, Osler, Albutt and others, but still despite the fact that such authorities hold it to be a rare lesion, no hesitancy is felt by many to designate such a murmur as we have been considering, associated with a transmission of said murmur up vessels of neck, and in all probability some hypertrophy of the left ventricle, as a true aortic stenosis.

Frequently the diagnosis of a valvular lesion is made upon insufficient evidence, and I might say upon the presence of a murmur only, without considering the corroborative evidence that we have in such conditions, thus leading to many an error. A fact that is frequently overlooked is the following: That valvular lesions are but one cause for the production of cardiac murmurs. The statement has been made that practic-

ally any of the organic lesions may be simulated by purely functional conditions. This appears to be a rather broad assertion, but nevertheless true in many instances, although not applicable in all cases, and often leads to the mistaken diagnosis of interpreting what is functional to be organic.

Recalling the fact that frequently an aortic stenosis is diagnosed upon the presence of a systolic murmur in the aortic area, let me here enumerate the conditions that may be the causative factor for the production of such a murmur, in their line of clinical importance.

1. Roughening, stiffening, fenestration or malformation of the aortic valves.

2. Roughening or dilatation of the arch of the aorta.

3. Aneurism of aorta.

4. Functional murmurs, anæmic states.

5. Aortic stenosis.

6. Pulmonary stenosis.

7. Open ductus arteriosus.

8. Mitral regurgitation.

9. Congenital narrowing.

In the foregoing classification, those causes which may be stated to be chronic in nature have only been considered, for it is this class that will give us the greatest difficulty in making a diagnosis.

Of the acute causes for a systolic murmur heard in the aortic area, that of a rheumatic endocarditis is probably foremost, while such a murmur may occur in any of the inflammatory conditions of the heart; also during the course of the various acute infectious diseases, notably pneumonia, typhoid fever, in the latter condition, the cause being due to an acute aortitis as shown by Thayer.

To make a positive diagnosis of aortic stenosis certain physical signs must be present, the most important of them being: (1) A systolic murmur heard in the second right interspace, and transmitted up the vessels of the neck. (2) The characteristic pulse. (3) A palpable thrill. (4) Absence of or an appreciable enfeeblement of the aortic second sound. Let me here lay special stress upon two of these important signs, for without them aortic stenosis cannot conscientiously be made; they are the characteristic pulse known as the *pulsus cordans*, which condition may not always be demonstrated by the palpating finger, but is readily elicited by the sphygmograph:

secondly, the diminished or more frequent absent second aortic sound. This diminished aortic second sound has been demonstrated to my satisfaction to be a valuable sign, and I have placed considerable dependence upon it as a strong differentiating element, in arriving at a conclusion, except in those cases where there is evidence of a marked hypertrophy of the left ventricle, such examples usually showing some evidences of an aortic insufficiency. A fact that further strengthens one's belief of the condition of the aortic second sound as being an important one, is that the various causes capable of producing a systolic murmur at said area, excepting that due to a true stenosis, show the second sound either not altered or accentuated in varying degrees. The large majority of systolic murmurs heard at the aortic area, especially after middle life, are due to the causes mentioned under 1, 2, and 3, viz.: Roughening, stiffening, fenestration, or malformation of the aortic leaflets, and roughening or dilatation of the aortic arch. These conditions are usually the result of sclerotic changes, and a fact frequently overlooked, but often demonstrated at the post-mortem table, is the evidence of sclerotic changes, in these great vessels, without evidence elsewhere; in fact, the peripheral vessels may be the last ones to become involved. Hence, the absence of sclerotic changes in these vessels does not bespeak against such changes at the aortic area. Furthermore, sclerotic changes can often be demonstrated in the various organs, and the cerebral vessels, with little or no evidence of such change in other vessels. Such facts must be borne in mind, or else error may creep in without our notice.

A systolic murmur due to the foregoing causes just mentioned, is most frequently counfounded with, and incorrectly called a stenosis. A thorough examination in these cases usually reveals other evidences of arterial sclerosis, high tension pulse, probably some nephritic change, and an all important ringing, or accentuated aortic second sound, which enables us except in extraordinary cases to exclude a stenosis. An aneurism may very closely resemble a stenosis, with its systolic murmur transmitted into the vessels of the neck with a palpable thrill. Here the two characteristics of a stenosis are wanting, namely, that of the pulse and the presence of a decreased aortic second sound, which in aneurism is increased. Other features of an aneurism such as localized pulsation, increased area of dullness, diastolic shock, and the various pressure symp-

toms will present themselves, and lead one to a correct diagnosis.

In regard to functional murmurs, these are usually associated with blood changes, and the causes for same, it may be said, that they have certain characteristics, as follows: Murmur basic in position, heard with greatest intensity over the pulmonic area, and rarely over the aortic area with same intensity, are systolic in time, and soft blowing in character. With these few factors held in mind little difficulty should be encountered in making a diagnosis. From clinical observation it has been my experience in these cases that there is an apparent accentuation of the second sounds as heard over the base, this being due to the diminished muscular tone of the heart, as the result of the anemic state, and leading us to the conclusion of a true accentuation. A point helpful in such cases, is the fact that functional murmurs occur usually in younger life, and as a rule before sclerotic changes assert themselves.

In considering pulmonary stenosis, open ductus arteriosus, and congenital narrowing, these form a class extremely rare, being of congenital origin and occur in patients who do not usually reach an age where a stenosis is likely to be present. In these conditions it can be noted that the characteristic pulse and diminished second sound would be absent, except in that of a congenital narrowing. In speaking of mitral regurgitation, a mistake is quite possible. It must be borne in mind that the murmur of an aortic stenosis may be so intense that it may be heard over the entire chest, hence the area of greatest intensity of a murmur is an important point in properly placing our lesion. I have seen a systolic murmur heard at the apex diagnosed a mitral regurgitation, whose cause was to be found in the aortic valves, because the area of greatest intensity was not located, the character of the pulse, and the condition of the aortic second sound not obtained; in this differentiation it is seen that the pulse, and aortic second sound make our diagnosis. If such a murmur be due to a mitral regurgitation we would have present our accentuated pulmonic second sound so diagnostic of our mitral lesions, which would not show any alteration in an aortic stenosis.

In the foregoing resumé it has not been attempted to present any new clinical feature, but to differentiate aortic stenosis, from those conditions that resemble it, provided it occurs uncomplicated. These cases are rare, but we frequently see it as-

sociated with aortic regurgitation, which will obscure some of its characteristics, but at the same time they are present to a greater or less degree, and it often narrows itself to a nicety to draw a proper conclusion.

To discuss this subject would entail too much time, but for brevity's sake we can state that a stenosis may be strongly suspected when in addition to the signs of an aortic regurgitation we detect a systolic murmur, transmitted up the vessels of the neck, at times a palpable thrill, with a modification of the Corrigan's pulse in the direction of the characteristic pulse of a stenosis, and a lessening in intensity of the aortic second sound.

In closing, the following conclusions seem justifiable:

1. That the characteristic pulse of an aortic stenosis, and the diminution or absence of the second aortic sound, are two potent factors to be considered in making a diagnosis for or against aortic stenosis, provided the clinical features which exist with this condition have been considered.
2. That aortic stenosis uncomplicated is a rare lesion.
3. That all systolic murmurs heard at the aortic area should not be diagnosed as aortic stenosis, for, in fact, the great majority of such murmurs are the result of atheromatous or fibrotic changes about the aortic valves, and within aortic arch.

THE DIAGNOSIS OF IMPETIGO HERPETIFORMIS.—Dr. G. Scherber (*Archiv. f. Dermatologie und Syphilis*, Bd. 94, H. 2 and 3), after reviewing all cases cited in the literature (in many of which the diagnosis was incorrect) gives the anamnesis of a typical case and its clinical picture, in confirmation of which the sterility of the blood and pustule contents is essential being noted in all cases corresponding to the classic Hebra type of the affection. It is to be emphasized that the cases clinically faultless, have been observed only in females; are always conjunctive with pregnancy, or, at least, the first attack dated back to a pregnancy. It is not determinable whether the process be purely toxic in nature or whether due to unknown micro-organism. The disease is accompanied by high fever, general cachexia, renal lesions and the development of a pustular eruption, the pustules appearing in groups and commonly in symmetric arrangement. One thing, however, is certain, viz., that the common pyogenic micro-organism, staphylo—and streptococci have nothing to do with the process. In the cases cited, phenomena were observed in the parenchymatous organ characteristic of hereditary lines, but which, as such, had apparently nothing to do with the morbid process.

PATHOGENY AND CLINICAL DATA OF THE SO-CALLED "URIC ACID PAINS."

BY

F. PINELE, M. D.

TRANSLATED BY P. W. SHEDD, M. D.*

From the Wiener, Klin. Wockenschrift, No. 21, 1909.

WHEN the physician, after extended hospital work, enters active practice, the syndromes of various diseases seem more or less strangely altered, for much that in the hospital attracted his entire attention, now retrocedes, whilst nosologic types gain prominence which occupied him little as hospital interne or physician. Personally, for myself (I not solitarily), this has been the case with the so-called "uric acid pains," which in practice are continually encountered in their most diverse forms.

In the syndrome of these "uric acid pains," it is characteristic that if we endeavor to contour it precisely, we find it slipping betwixt the fingers; further, if scientific information on the subject be desired, we meet only with literature of lesser value, for the reason that official science is satisfied, in part, with considering it as a "negligible quantity," despite the fact that patients are always in evidence with such pains and are greatly concerned about them. Officially unimportant and unemphasized, these morbid sensations seemingly gain import in the imaginative sphere and play their role under the most varied disguises.

Under the rubric of the so-called "uric acid pains," I understand a, clinically, somewhat vague syndrome which, without presenting the clinical phenomena of true gout, are found, partly as diffuse pains in the most various regions of the body, partly as more acute and delimited pains in certain areas (arms, legs, back, sacrum, knee and ankle joints), either appearing isolatedly or accompanying all possible morbid conditions.

*So excellent the substance of the article, the analysis of cases, the method of collecting data, that it has been translated as a valuable contribution to literature and a model for most of our "hospital runners," who despite great opportunity, seldom collate and analyze helpful clinical facts.

Naturally, we eliminate pains due to exogenous infectious organisms, such as acute or chronic infectious articular rheumatism, gonorrheic rheumatism, tuberculosis or syphilis of the joints, etc. The remainder is decorated with names such as: uric acid excess, pseudo-gout, uric acid anomalies, diatheses, pains, etc., on the assumption, approved by science, that the patient is not suffering from true gout but from a para-gout, a member, nevertheless, of the interesting gout family. In the following discourse, the name: "uric acid pains" only is retained, for other nomenclatures, such as uric acid excess, uric acid diathesis rest in part upon absolutely false premises, and are, in part, assumed to be definite, clinically and chemically, more exactly characterized disease syndromes.

For several years I have been tracing cases of this sort, in order to arrive by purely clinical methods, at a greater clarity in their regard; to discover what was hidden behind this, perhaps more confused than complex syndrome, and, as preliminary basis for these investigations I accepted as typical all symptoms diagnosed by experienced men as "uric acid pains," or proffered by the patient herself as belonging to the above-described syndrome.

In process of time, 127 cases with so-called "uric acid pains" were observed, of which a small number (17) were certainly due to other diseases, which it will be of practical value to note. There were three incipient tabes, two typic neuralgiæ paræstheticæ (disease of the nervous cutaneous femoris externus), five cases of flatfoot, a woman with a commencing osteomalacia, a 34-year-old man with gonorrheic articular rheumatism, two women with acute articular rheumatism, one luetic meningitis spinalis of a rare type, two diabetics complaining of neuralgoid pains in the lower limbs.

In the remaining 110 cases, nothing definitely pathologic could be located as causing the pains. In the course of time I succeeded in ordering the confusion of these 110 cases into three groups,—19 cases, ten women and nine men (or 15.8 per cent.), in the meantime remaining unclassifiable. The single groups will now be described in order, emphasizing the fact that in no instance was anything characteristic of arthritic urica (acute attacks of gout, tophi) discoverable.

GROUP I: CLIMACTERIC.

This includes those cases, clinically best contoured, and offer-

ing the clearest pathogenetic relationship—cases found in the menopause epoch. Of 71 (relatively 61) females with the characteristic pains, 46 (or 64.7 per cent., relatively 75 per cent.) were in the climacterium. Cognizance of the location of the symptom-complex of these pains during the change of life, is best gained by analyzing the phenomena of this period. The climaxis, in general, is usually characterized by the objective symptom of a sudden or gradual cessation of the menstrual flow. Commonly, however, this chief symptom is accompanied by many others: pulsation, vertigo, cardiac anxiety, pressure, palpitation, pseudo-anginal states, paresthesias and vaso-motor disturbances in hands and arms (more rarely in the legs), stiffness of the arms on waking, obesity, etc. Heberden's nodes also belong here. Likewise the above-described "uric acid pains" are frequently discovered, if carefully sought, either diffuse and shooting through the entire body or else distinctly localized—most often in the hands, legs, sacrum, back, sometimes the knee and foot. As to duration, they may persist for days, weeks or months, are aggravated in cool, moist weather and better from warmth, and often reappear after an interim of months. The relation of these pains to the menopause demands, above all, exact knowledge as to the time of their appearance. Commonly, after cessation of the menses, the climacteric runs through a period of several years, with gradual subsidence of the characteristic phenomena. These may persist even later in life, or, the menopause may be abnormally early. All this which we have here stated of the climaxis is applicable also—as numerous observations have demonstrated—to the symptom-complex of the pains, so that it may be affirmed: If the beginning of the menopause is usually from the 45th to the 50th year, the 45th to the 60th year correspond to the appearance of these painful climacteric sensations.

The relationship of the various climacteric phenomena to the involution of the sexual apparatus is, in my opinion, best established, if we compare the clinical symptoms of the *climax præcox naturalis* and *artificialis* with those of the normal menopause. So far as the *climax præcox naturalis* is concerned, I have observed ten cases, in which, with the early appearance of the menopause and climacteric phenomena, the characteristic pains were also noted. Of particular interest are those cases where the early menopause appears periodically, so to speak, and where the painful sensations come and go with

the flux. Of the greatest significance are, I think, the pains developed in the artificial climax præcox—gynecologic operative cases, of which I studied thirteen. Either diffuse or localized, they were identical with the pains of a natural menopause.

GROUP II: SENILE.

Here were 19 (6 women, 13 men) cases senile in type. We may best begin with observation of such female cases as were found in the 60's, the change of life having been completed, and with whom the question must sometimes be left open, whether the present symptoms pertain to the climacteric or to senility. Such cases had the pains, either during the menopause or after entering the 60's. Of import, however, in a comprehension of these pains in the senile male, is the comparison of this group of women with their male analogues. Observation of 6 men, æt. 59-67, showed the characteristic "uric acid pains" as well as phenomena analogous to those of the menopause; flushings, cardiac pressure, vertigo, pseudo-anginal states, Heberden's nodes, paresthesias in hands and arms, decrease or loss of the sexual function. Objectively, there can be no doubt that in these males, whose vascular organs and kidneys were normal, we have phenomena analogous to those of the menopause. This view is corroborated by observation on other males (over 60 years) who, though having no pains, had suffered for some time with troubles similar to those developing in the female climaxis, and diagnosed as nervous, neurasthenic or arteriosclerotic. As, in the course of time, all such disturbances ceased, and the present examination showed no organic lesions, I consider that we are dealing here only with conditions analogous to those of the menopause.

GROUP III: FUNCTIONAL NEUROSES.

This includes 26 cases (9 women, 17 men), with functional nervous symptoms: 2 women with hysteric stigmata, 7 women and 17 men with nervous and neurasthenia symptoms. Of the 7 women, 4 were suffering from lesions in the genital tract (myoma, endometritis chronica, oophoritis). In the 17 males the characteristic symptoms of neurasthenia were present (great weakness, mental and bodily relaxation, gastro-intestinal troubles, nervous cardiac disturbances, poor sleep, etc.). The

inner connection betwixt the painful sensations and the neurons was very apparent in most cases. Particularly, there was a parallelism between nervous upsets and the "uric acid pains"—a synchronous aggravation of both conditions, and a like amelioration or disappearance.

* * *

We come now to an explanation of the pathogenesis of these "uric acid pains," and it is proper to consider in like order with the single groups, beginning with the female climacteric. If the very frequent appearance of the pains during the menopause bespeaks close relation between the two, by the demonstration of analogous pain-sensations in the natural climax præcox—and, what I consider of the greatest significance, their presence in the climax præcox artificialis of younger women, their relationship is most fully confirmed; for the collection of cases of artificial climax præcox (analogous to Heberden's nodes) form an involuntarily executed but exact experiment on the part of the gynecologist. The identity of the pains in all forms of menopause and their relative frequency, leads us to attribute them to the natural or artificial changes in the female genitalia. As previously mentioned these pains may also develop in women after the close of the climacteric period and still have intimate relationship with the climacterium, so that these pain-sensations in women under æt. 60 are often attributable to involution-processes in the female sexual apparatus.

In what degree the ovary, uterus or other organs belonging to the sexual apparatus are implicated in the genesis of these pains, our present knowledge does not allow us to determine, yet reference may be made to some unprejudiced observations, where women who were free of pain previous to operation, developed absolutely characteristic "uric acid pains" after removal of both ovaries.

Of 6 males in Group II, so close an analogy with the menopause could be established, that I doubt not that in these males also, a relationship between the "uric acid pains" and involution processes in the sexual apparatus exists. The comparative rarity of such observations agrees with my supposition, for it is well known, clinically and phynologically, that involution of the sexual apparatus in the male commonly proceeds slowly and unnoted. If we consider the great number of disturbances accompanying the menopause, whilst in the male we are

dealing with a much rarer and simpler syndrome, the possibility that, in senile males suffering from characteristic pains without other troubles, there are likewise present, etiologically, climacteric influences.

In Group III, attention should be called to the minority (females), where there was relative frequency of genital disease, and where the pains developed as sequelæ of the genital process. With the males forming a majority of 17 (equals 73 per cent.) the fact was remarkable that the painful sensations so frequently followed upon various functional defects in the sexual life and functional lesions of the sexual organs, *e. g.*, coitus interruptus in 5 cases developed the pains which, in 3 cases exclusively, and in the other 2 chiefly sacral; in 4 cases too frequent and exhausting intercourse; in 1 case (under observation for months), and in another (for years) there had been sexual abstinence in place of the previous normal sexual life. In the great majority of these cases, there was demonstrable the close relationship between the pains and the above-mentioned functional disturbances of the sexual apparatus, in that, after removal of such anomalies, the "uric acid pains" almost entirely disappeared. Hence, there is no doubt that a great portion of the men and women in Group III were suffering from pains for which the genital apparatus was etiologically responsible.

* * *

Having thus considered the clinical data and pathogenesis of the so-called "uric acid pains," it is proper to exhibit, objectively, all phenomena confirming or negating the relationship of our symptom-complex with anomalies of uric acid metabolism, and, firstly, the clinical symptomatology. We shall do best to compare the "uric acid pains" with the disease in which anomalies of uric acid metabolism (according to the dominant theory) *e. g.*, with arthritis urica.

In so far as localization of pain is concerned, we note great differences between gouty and the so-called "uric acid pains." In gout, the toe and other foot joints are almost invariably affected. Garrod states that only in 5 per cent. of gouty attacks observed by him was any other than the great toe joint affected, and in Scudamore's statistics of 516 cases (gout), the toe, foot and ankle joints were so often solely implicated, that for the joints of the upper limbs, only 18 cases (3.5 per cent.) were left. In contrast to such gouty localization, my patients were

much more frequently affected in arms and shoulders, back and sacrum.

Of great interest are the statements in regard to age and sex. In gout, the first typic phenomena appear between the ages of 30 and 40. In Scudamore's cases, 50 per cent. were found, æt. 30-45; æt. 50-60, 7.3 per cent. only. If these data be compared with ours, we note a marked difference—"uric acid pains" developing mostly æt. 45-60, and hence related to the involution of the sexual apparatus.

In regard to sex, a distinct difference is noted. All authors emphasize the preponderancy of gout in the male. Patissier among 80 gouty patients had two women (2.5 per cent.); Durand-Fardel (500 cases), 4.4 per cent.; Lecorche (150 cases), 8 per cent. My observations in "uric acid pain" reverse, to a great degree, these gouty statistics, *e. g.*, 71 females to 39 males.

Alcohol and lead have, supposedly, as is well known, an etiologic significance in true gout, and Minkowski also noted that, of laborers affected with gout, many were lead-workers. Any genetic action of alcohol or lead in the so-called "uric acid pains" was, on the contrary, not discernible. Further, it has been long known that in gout there are present with relative frequency, lesions of the kidneys. In my cases there was not a case of parenchymatous or interstitial nephritis and but one of nephrolithiasis.

The important role played in gout by uric acid and the purin bases is recognized by most investigators (*e. g.*, v. Noorden, F. Kraus, Brugsch, Schittenhelm).

The data given by me afford the following deductions:

My clinical observations and pathogenetic conclusions concerning the so-called "uric acid pains," show that in 61.8 per cent. of the cases, the symptom-complex is related to functional disturbances in the sexual sphere. In many of the remaining cases, the same relationship is probable. Contrast of true gout with these painful sensations in respect to age, sex, localization of pain, and aloxuric metabolism shows such striking dissimilarities that we may state that nothing bespeaks a relationship between uric acid and these painful sensations. It is, therefore, advisable to avoid any terms or names hinting at such a relationship, and to locate the syndrome in general, in view of its pathogenetic relationship with the sexual apparatus under the rubric of "genitalic pseudo-gout" and in particulate (according the three groups defined) to term it respectively: "Climacteric," "senile," or "nervous" pseudo-gout.

HOMŒOPATHIC TREATMENT OF DISEASES OF THE HEART.

BY

GEORGE FREDERICK LAIDLAW, M. D., NEW YORK.

(Read before the Bureau of Homœopathy of the American Institute of Homœopathy, June, 1909.)

THERE are two ways of approaching this subject; first, from the standpoint of the symptom hunter and, second, from the standpoint of diagnosis and pathology. You can see these two methods in operation in any homœopathic hospital. The symptom hunter comes on service in the ward and finds a case of heart disease. Often he does not examine the patient. He is a little timid about exposing himself to ridicule. Usually he accepts the diagnosis of his predecessor but he inquires with great interest what remedy is being given. Indifferent as to the diagnosis, on the subject of treatment he is all attention and after careful consideration of the symptoms of the patient, he is apt to change the remedy to one of his own selection. The service changes and the man who values diagnosis comes on the ward. He is very much interested in the diagnosis made by his predecessor and proceeds immediately with stethoscope and perhaps with sphygmograph to examine the patient and to verify or contradict the recorded diagnosis. When it comes to the prescription, however, he moves hastily to the next patient leaving the prescription to the interne or simply continues the former medication. The things that each one inquires about and the things that each one insists on arranging in his own way show where their respective interests lie.

These two opposed methods stand to-day in the homœopathic school, glaring at each other and accusing each other of ignorance. In the interpretation of this phenomenon, we must first realize that it is not a matter of ignorance but a matter of different points of view. It is the old quarrel which has existed in medicine from the days of Hippocrates and before, the quarrel between vitalism and mechanism. The symptomist is a vitalist who depends upon the vital power of his patient. He cares nothing for the valve affected or for the pericardial adhesion. He has supreme faith in the vital power of the body and believes that the vital power which made that heart and preserves it can repair it when injured.

The diagnostician is a mechanist. He knows or assumes to know the mechanism of the heart, its anatomy and chemistry, that is, its physiology. He lays great stress on which valve is affected and which auricle or ventricle is distended. He knows that such a drug raises intra-ventricular pressure and that such a drug lowers it. He demonstrates that physical rest slows the heart's action and that lengthening the diastole or the period of rest aids the heart's nutrition. In short, he assumes to know the cardiac mechanism as well as he does that of his automobile and when anything goes wrong he does not hesitate to put his fingers in the machinery and set it right.

The vitalist does not see the necessity of all this special knowledge. To his mind, the vital power of the patient is everything. Without the vital power, no amount of ingenious mechanism will work; and, with vital power, a badly damaged mechanism may work fairly well. This is what the vitalist means when he insists that not only the heart but the patient himself is sick. To him symptoms are distress-signals run up by a distressed vitality and he gives his remedy to the whole body, confident that the vital power that fashioned the heart and runs it without requiring him to know its mechanism can cure its disease in the same way.

It seems to me that each of these men is right but that each of them is also neglecting an important part of his business. The symptomist has an incomparable system of cure but he neglects a number of important details. The diagnostician has all the details but he neglects the system of cure. The symptomist has a philosophy but he will learn that there are more things in heaven and earth than are dreamed of in his philosophy. The mechanist has a science but he will learn that science moves but slowly creeping on from point to point and that there are many useful things as yet unexplained by science.

I believe that the homœopathic physician of the future will unite these opposing views.

I believe that the mechanist will learn the value of curative symptomatic medication.

I believe that the vitalist will learn two things. First, he will abandon his position that the diagnosis is useless because it does not help in the selection of the remedy. It is true that it does not help in the selection of the remedy, but it does help in what is just as important to the patient, the selection of adjuvant treatment, the application of rest and exercise, of Nau-

heim baths, gymnastics and cardiac stimulants, as alcohol, digitalis and strophanthus.

The second item that the vitalist will admit into his philosophy is recognition of the change that is coming over medical practice, a change which involves the development not only of the homœopathic, but of all schools of medicine. Compare the situation with tuberculosis. Not many years ago, the physician was supposed to be doing his whole duty when he recognized tuberculosis in an advanced stage and gave the patient a bottle of medicine, whether that medicine was cod liver oil or calcarea 200. Now we think a physician negligent who does not recognize tuberculosis cases early and adopt hygienic and dietetic treatment. So, in diseases of the heart, the day has passed when a physician is justified in recognizing heart disease by the appearance of cardiac dyspnoea and dropsy and simply prescribing arsenicum or digitalis. He must now recognize the disease long before the appearance of cardiac dyspnoea and dropsy and arrange the hygienic conditions, the exercises, baths and business habits of the patient to conserve his energy as long as possible. For this early recognition diagnosis is essential. Diagnosis will help homœopathic therapeutics more than this; for, many cardiac conditions in their early stage are amenable to the action of homœopathic remedies; whereas, left to run to advanced stages, they are incurable. These diseases are recognizable in their early stage only by the exact methods of physical diagnosis. Thus, your diagnosis will help your homœopathy and your homœopathy will help the patient, which is the ideal towards which we strive.

GUINÆAL AND OCULAR TUBERCULOSIS.—Dr. A. Darien believes that guinæal is to tuberculosis what mercury is to syphilis. He cites two cases of peratitis parenchymatosa, where Koch's tuberculin had been used. A subconjunctival injection of 0.02 of guinæal cæodylate in 1 c. c. of water caused the pain to disappear so rapidly and in three or four days cure was complete. A second injection was necessary in one case. Encouraged by these cases, he tried it in other similar ones, with equally good success. He tried it also, with favorable results, in dacryocystitis, phlyctenular conjunctivitis, episcleritis, where the action was especially favorable, iritis, choroiditis, and choked disk. He refers to a case of Arnold's, where a meningitis and optic munitis were cured by inunctions of guinæal.—*Annals of Ophthalmol.*

EDITORIAL

THE PASSAGE OF A TUBE INTO THE COLON.

It will probably surprise most physicians and surgeons to learn that Soper, of St. Louis, has conclusively demonstrated by means of radiographs that it is impossible to pass a soft rubber-tube into the rectum more than six or seven inches without it coiling on itself. Even by using the sigmoidoscope he has shown the tube cannot be introduced beyond the middle of the sigmoid. In a series of sixty cases in which the experiment was tried he only succeeded once in getting the tube beyond the dome of the rectum and that was in a patient who had a congenital dilatation and hypertrophy of the colon. Even in this case it was necessary to make use of the sigmoidoscope to introduce the tube.

In his original article, published in the *Journal of the American Medical Association*, August 7, the author states that although efforts were made to pass the tube with patients in every possible position it invariably coiled up in the rectum. Even in those instances in which he felt sure the tube had entered the colon the radiograph showed it to be coiled up as before.

Despite the general belief in the profession to the contrary, it is interesting to note that Boas and Nothnagel several years ago denied the possibility of passing a soft rubber-tube into the sigmoid and in particular declared the high enema to be an illusion. That fluids introduced into the rectum will pass up to the caecum has, of course, been repeatedly demonstrated in surgical practice and Soper has corroborated this fact by means of radiographs taken after the injection of a mixture of oil and bismuth through a short tube.

The practical results of Soper's experiments may be summarized as follows: First, it is useless and inadvisable to attempt to administer a rectal enema through a long tube. The irritation of the bowel incident to the coiling of the tube in the dome of the rectum favors the expulsion of the fluid.

Second, water or other liquids can readily be introduced

into the colon by means of a short tube, five or six inches in length by placing the patient in a favorable position.

Third, in rare instances in which the tube actually passes beyond the sigmoid it is more than probable that we are dealing with some anatomical abnormality.

THE THERAPEUTIC USES OF FOOD.

THAT food was capable of exercising a beneficial or deleterious effect on the human organism according as to whether it was suitable or unsuitable in quantity or quality was no doubt early impressed upon the human race. The natural distaste for food during the acute stages of gastro-intestinal inflammations and acute fevers also, no doubt, suggested to those who ministered to the sick, even in the most primitive times, the advisability of altering the diet in such conditions.

Among the writings of the ancient Greek and Latin physicians we find elaborate directions given regarding the feeding of persons afflicted with various diseases. During the "middle ages" little or no progress was made in the dietetic treatment of disease and even after the revival of learning in the fifteenth and sixteenth centuries this phase of the therapeutic art received but scant attention. At the time of Hahnemann the medical profession was so deeply absorbed in devising complicated and disagreeable mixtures of drugs that they had neither the time nor the inclination to concern themselves about the place of food in therapeutics. Hahnemann, partially because he discerned the importance of a proper diet in treating disease and partially because he desired to avoid any article of food that might interfere with the action of the homœopathic remedy, gave a great deal of attention to the subject of dietetics and there is no doubt but that the care that the followers of Hahnemann exercised in this matter gave them a great advantage over the majority of medical practitioners of their day. Gradually, however, the therapeutic value of food gained recognition among practitioners of all schools and to-day is receiving world-wide attention.

In fact it would almost seem that the subject of dietetics has become a popular fad and every news-stand contains its quota of magazines devoted to the use of food in health and in disease. Scarcely a day passes but what some new food fad is developed.

If we give credence to many of the statements made we find ourselves marveling at the powers of the human digestive organs. For example, there is the octogenarian who attributes his long life to the fact that he lives on peanuts and almonds. Here we have the strict vegetarian who grows robust on cereals and fruits, and there the vigorous hunter who eats eight pounds of meat a day. Long articles are written to prove that the toothsome steaks, which our ancestors consumed with delight, are in reality insidious poisons and the horrible hobgoblin "uric acid" is brought forth and accused of being the source of almost every ill to which the human flesh is heir. But the health faddist does not deign to stop here, for if we search but a little further we will find that cancers are the result of eating tomatoes; potatoes cause large abdomens; tea causes the teeth to protrude; onions relax the tissues of the jaw, and so on until we learn that almost every article of food that has nourished the human race passably well for untold centuries is in reality but a poison in disguise.

When we come to consult the works of scientific investigators on the subject of food in health and in disease we are often puzzled at the decided differences of opinion that exist. For example, it has been taught by most authorities on this subject since the time of Voit (1857), that about 3,000 calories of food were necessary to supply the daily needs of a man performing a moderate amount of physical work. This stated in terms of ordinary food would be equivalent approximately to one pound of beef, two ounces of butter, six ounces of potatoes and a pound of bread. It seems peculiar that such statements should have passed as scientific facts, unchallenged, for almost half a century, when every medical man can recall numerous instances among his patients who fall far short of consuming this amount of food daily and yet maintain their health and perform a moderate amount of physical work. It was, however, only very recently that Chittenden, of Yale, proved by experiments on Horace Fletcher and numerous other persons, that the nutritional equilibrium of the body could be maintained on 1,600 calories of food per day, or one-half the amount prescribed by the commonly accepted dietaries. It seems, therefore, only reasonable to conclude that no arbitrary standard of the amount of food required by any one individual can be set and that many persons can maintain a perfect state of health on much less than 3,000 calories daily.

As to the kind of a diet that is best adapted to meet the needs of the human organism it is pretty generally agreed to both by investigators and by practical physicians that a mixed diet gives the best results. Generally speaking, it may be stated that prior to forty years of age a greater quantity of food, and especially a larger proportion of meat is needed, than in those past middle life. That most people eat too much is a general statement which is often heard, but which, in that form at least, is far from true. A large number of well-to-do people past middle life undoubtedly do consume more food than is required for their needs, especially if they are inclined to sedentary habits. That the average young person, or the majority of those whose appetite is limited by the slimness of their purses, eat too much we seriously question. As evidence of this we might cite the fact that tuberculosis, so common in the young and in the poor, almost invariably finds its victims among those who are underfed and poorly nourished.

It is not our intention to discuss the various forms of diet that are adapted to particular diseases. There are a number of reliable works on this subject and despite reasonable differences of opinion on some points there are certain general principles which will guide the discriminating physician in selecting a suitable regime for each individual case. Irrational fads founded upon unproven hypotheses are to be studiously avoided and in all instances the appetite and the legitimate preferences of the patient should be given due consideration. Pawlow has proven that foods which are pleasing to the taste of an individual are much more readily digested than are others, and we feel that it is much more rational to give due heed to the demands of Nature than to rely exclusively upon the pseudo-scientific statements of the promoter of some patent food.

LOCALIZED FACIAL SWEATING, FOLLOWING CERTAIN OLFACTORY STIMULI.—Three cases are reported in which localized facial sweating quickly follows the ingestion, or smelling, of certain pungent articles of diet. In one case, one or more members of the family have been similarly affected during at least four generations, and in the other two cases the condition has been traced through two generations. The same stimuli produce the condition in all members of the family, and its localization is the same in each. It did not appear before puberty in any of the cases.—Grover W. Wende and Frederick C. Busch, *Jour. of the A. M. A.*, July 17, 1909.

GLEANINGS

THE EARLY DIAGNOSIS AND THE TREATMENT OF POTT'S DISEASE.—According to the author, early diagnosis meant the detection of the trouble before the occurrence of angular kyphosis, marked sensory or motor disturbances or palpable abscess. The disease was almost, if not as frequent, in adults as in childhood, but manifested itself differently in the two ages, being commonly diagnosed in the adult as disease of some organ or organs, on account of its slower progress and the more frequent unilateral pains which remained in one location longer, due to the larger size and greater proportion of mineral salts in their bones, which offered a greater resistance to the tubercle bacilli. There were also some differences in female adults, referable to the female generative organs.

The early symptoms were transmitted pains at any part of the body or limbs below the seat of the disease, unilateral or bilateral, more severe at night and intermittent in character; weakness; stiffness; numbness; tingling of the limbs; loss of appetite; sleeplessness; malaise; slight elevation of evening temperature; enuresis in children; frequent urination in adults, increased by exertion; persistent constipation, nausea and uncontrollable vomiting at times, persisting hours or days, especially in adults; grunting, painful respiration, coughing or sonorous breathing; nervousness, excitability, irritability, hysteria and neurasthenia, more common in female adults; pelvic pains and various menstrual disturbances in females past the age of puberty, with exaggeration of all other symptoms at the menstrual epoch, often causing them to undergo various operations from which they derived no benefit.

The early physical signs were guarded gait; restful attitudes standing or sitting; inability to bend or stoop without effort or pain; forward tilting and projection of the pelvis; rigidity of the muscles of the trunk and neck, especially the abdominal muscles; increased obliquity and coaptation of the ribs; anteroposterior flattening of the chest; increased lordosis of the neck or lumbar region; increased backward projection of the dorsal region; increased tension of one or both of the psoas muscles at times; slight angular bend of the spine; increased deep knee reflexes; night cries, night horrors and moaning. All of these symptoms and signs might be increased by jarring from riding, driving, walking, bending, lifting, stooping, etc. Patients presenting many or all of these signs and symptoms with a history of gradual onset and long duration, which have resisted medical and surgical interference, should lead one to suspect strongly Pott's disease and a radiograph should be taken in the following manner: With a tube sufficiently soft to show the bones fairly dark, making a longer exposure, with the tube 25 to 30 inches from the plate. In tuberculous disease of the spine, even before sufficient bone destruction had occurred to be detected, such a skiagraph would show a shadow of a cold abscess and will greatly aid in making an early diagnosis.—*Dr. Compton Riely, Archives of Pediatrics.*

CLINICAL SIGNIFICANCE OF GLYCOSURIA IN PREGNANCY.—Williams (*American Journal of Medical Sciences*) concludes:

1. A positive reaction with Fehling's solution during pregnancy does not necessarily indicate the existence of diabetes, but is usually due to lactosuria, or to transient, alimentary or recurrent glycosuria.

2. In such cases it is imperative to determine whether the sugar occurs as lactose or glucose, as lactosuria is without clinical significance and is probably associated with premature activity of the breasts.

3. The significance of glycosuria is not so clear. If alimentary in character, it may be regarded with impunity. Otherwise, it may be of the transient or recurrent variety, or may indicate the existence of true diabetes.

4. If the glycosuria appears late in pregnancy, does not exceed 2 per cent. in amount and is not accompanied by symptoms, it is probably transient and may disappear spontaneously at any time, or persist until the end of pregnancy. In either event it is usually of slight clinical significance, and merely indicates that the patient should be carefully watched.

5. If the sugar appears early in pregnancy and in large amounts, the condition is more serious, as it may be impossible to make a positive diagnosis until after delivery, when the condition disappears in glycosuria, but persists in diabetic cases.

6. Pregnancy may occur in diabetic women, or diabetes may become manifest during pregnancy. Either is a serious complication, although the prognosis is not so alarming as is frequently stated; many persons do perfectly well, while a smaller proportion die in coma or collapse at the end of pregnancy, or during or shortly after labor.

7. If the output of sugar is large and cannot be controlled, or at least markedly diminished by suitable dietetic and medicinal treatment, the induction of abortion or premature labor is indicated even in the absence of serious symptoms, and much more so when they are present.

HOMOEOPATHIC REMEDIES FOR THE LYING-IN PERIOD.—In each and every case, even if perfectly normal, I give aconite 2x every hour while awake, for at least twelve to eighteen hours, or even twenty-four hours, if there is any so-called fatigue fever. For this is too early to have fever due to infection. You can tell how long to give aconite by the condition of the skin and the character of the pulse. These are a much better guide than the temperature. The temperature may, during this time, reach 99.1-2 to 100 within a few hours after labor, but, as already stated, this is simply the so-called fatigue fever and is very promptly controlled by aconite. When the pulse drops below 90 and the skin is moist, discontinue the aconite and give arnica 2x for the next twenty-four hours. This remedy will control the sore and bruised feeling and alleviate the "after pains" to a marked degree. After the arnica I give Belladonna 3x for a week or ten days, unless the breasts are too hard, in which case I give bryonia instead of belladonna, and in hundreds of cases have I seen the breasts soften under its use and mastitis prevented. Of all remedies in the materia medica, belladonna produces the most marked benefit in relieving the engorged and congested condition of the pelvic organs. This is true in all cases as well as lying-in women.

For profuse loss of blood after parturition, we have a few sheet anchors upon which we rely in the order of their importance. They are: Crocus, ipecac, sabina, trillium, secale, and ustilago. Do not depend too much upon the fluid extract of secale. In some cases accompanied by marked gastric symptoms hydrastis will be of great help.

For sore nipples we have such remedies to rely upon as croton tig., graphites, mercurius and silica, and above all things in those cases do not forget Friar's balsam.

For unwholesome or abnormal secretion of milk that does not agree with the child we receive marked benefit from such remedies as aethusia, causticum, belladonna, bryonia, dulcamara, rheum, rhus tox, pulsatilla and silica. For scanty supply of milk we have such remedies as aconite, agnus castus, belladonna, bryonia and causticum.—C. B. Kinyon, M. D., *New England Medical Gazette*.

POLYCYTHEMIA.—In the *Zeitschrift für exp. Path. u. Therapie*, B. 5, H. 3, E. Munzer gives two instructive cases of polycythemia, in the first of which there was a simple polycythemia, without enlargement of the spleen or increased blood pressure, in a man, aet 53, 10 million red cells to the cubic centimeter and a viscosity of the blood, according to Hess, of 6.8. The cause of the condition in the author's opinion, was an enormous accumulation of fat in the mediastinum, since with its reduction under treatment the cyanosis and excess of red cells decreased. In the second case, with the Polycythemic condition ($7\frac{1}{2}$ million red cells; viscosity 11.6) was associated an enlarged spleen, in a man, aged 55. Polycythemia appears with hypertrophy of the spleen (Vaquez, Osler) because of a chronic disturbance in the portal circulation; without splenic enlargement and with lack of oxygen in congenital defects of the heart, in all conditions of chronic dyspnea—as in genuine rarefacient emphysema, arterio-sclerotic changes in even arterioles, in which case there is marked increase of blood pressure—in residence in high altitudes—and finally, in poisoning by phosphorus, carbon monoxide, nitro-benzol and antifebrin, where, however, the red cells are but transiently increased in number. In the true polycythemias there is irritation of the bone marrow, probably from qualitative loss in the hemoglobin whereby its capacity for taking up oxygen is impaired, if there be no reason for suspecting a primary affection of the bone marrow.

EXPERIMENTAL CAVERNOUS PHTHISIS.—In the *Berliner Klin. Wochenschrift*, 1909, No. 18, Prof. Romer (Marburg), states that the data obtained in general practice and in epidemics, as well as those of pathologic anatomy and of biology, compel the conclusion that pulmonary consumption in adults is, in an overwhelming majority of cases, due to a tuberculous infection of the organism in childhood. (Behring's infantile infection via the intestinal tract). Because of this early infection, however, the human organism becomes "altered" (ungestimmt), and this alteration of condition or constitution is dependent, as the author demonstrated experimentally in guinea pigs, upon the fact that an animal under the influence of a tuberculous infection is immunized against a new infection with the bacilli of tuberculosis. The tuberculous individual, therefore,

certainly possesses increased power of resistance against further tuberculous infection, and hence it becomes comprehensible, if we apply these data from animals to man, why the greater portion of mankind, after having suffered one or more infections with tubercle bacilli without developing phthisis or altering the general health of the organism, is more or less protected against the grave consequences of unavoidable later infection. The query as to why it is that so many of the human species (despite immunization) develop the disease, is again answered by animal experimentation. The author was frequently able to develop a genuine cavernous phthisis in guinea pigs where one of two conditions had been complied with, viz.: (1) Where the animals had been infected a number of times during a period of 1-1½ years by cutaneous or subcutaneous injections of weakly virulent or artificially debilitated tubercle bacilli (i. e., a chronic infection), or (2) much more positively and earlier by an artificially massive re-infection of animals already chronically tuberculous, and in which re-infection with small doses of tubercle bacilli had demonstrated complete immunity. Then the following conclusions were arrived at: An adult, tuberculously infected during childhood, possesses augmented resistive powers against a re-infection and therefore easily overcomes a sequent light accession of bacilli from the external world. Hence, we may, on scientific grounds, dissipate also the bacteriophobia of the laity, whether in man there can occur so massive an infection from the outside world. That the protection afforded by a previous bacillary infection may possibly hinder the development of an acute miliary tuberculosis, but not that of an insidious and progressive phthisis, is not, at present, absolutely determinable. Prof. Romer believes that phthisis is commonly a re-infection evolving from an earlier tuberculous infection—in other words, we have here a metastatic auto-infection.

THE INJURIOUS AND THE USEFUL EFFECTS OF FEVER IN INFECTIOUS DISEASES.—From research work and animal experimentation, Rolly (*Munchener Med. Wochenschrift*, 1909, No. 15) concludes that a moderate fever is less injurious than commonly supposed. Many disadvantages, formerly attributed to the increased body temperature, are demonstrated by the most exact experimental investigation to be due directly to the infectious cause. The only harm done (disregarding some of the subjective symptoms) and indubitably the result of the febrile rise, consisted in an augmented disintegration of albumin with increased fusion or liquefaction, as it were, of the substance of the body; in a moderate decrease of hemoglobin, together with a slight lessening in number of red corpuscles, and in animals having a high temperature an accelerated cardiac and respiratory activity, the febrile temperature undoubtedly favored the vital activity of the leucocytes and the production (due to the presence of the infecting agent) of antibodies, such as he agglutininus, bacteriolysin, anti-toxins. If, in the various experiments, the temperature rose above 40°C. (104°F.) the leucocytic activity lessened, there was marked disintegration of albumin, and loss of body substance. In man the optimal temperature, i. e., before these lesions developed, lay (according to Linser and Schmid) between 39-40°C.; in rabbits, which have a normal temperature above the human, at 40°C or a little over. Hence, taking all things into considera-

tion our present knowledge would lead us to estimate a moderate fever as an agent for good, not evil. In fever we cognize the endeavor of the organism to remove or neutralize more rapidly and vigorously, the invading bacteria or their toxic products. We can easily conceive that nature, in such endeavor may exceed the norm, and develop temperature above 40-41°C., which have a direct, noxious effect upon the organism. According to the author, we should endeavor to influence the temperature in infectious diseases only when it exceeds 40°C. In lesser temperatures we should be led to a moderate antipyretic treatment only where there are other disturbances, particularly if of central origin: headache, delirium, sopor, restlessness, grave disorders of the neural centers governing respiration and the circulation. Such antipyretic measures are not, however, primarily directed against the febrile rise, but against the other symptoms which may, under certain conditions, become extremely dangerous.

If, in a given case, we have determined upon an antipyretic treatment, we should not, in the author's opinion, follow the aggressive procedures of Brand and Liebermeister (cold baths, etc.), but rather the mild methods of Curschmann: lukewarm baths with sequent moderate cooling; and secondly, where indicated, the aid of a moderate medicinal therapy may be invoked.

THE LOCAL TREATMENT OF TUBERCULOUS FOCI WITH QUININE.—Dr. O. Bey, Jr., (*Deutsche Med. Wochenschrift*, 1909, No. 19), though not attributing panaceal virtues to quinine, considers it extremely efficient in many cases. The literature shows that quinine has often been commended as active in tuberculosis, but Dr. Bey, ignorant of its use by others in this disease, has employed it, since 1904, in many cases. In lupus and tuberculous dermal ulcers a thorough curettage with the sharp curette is followed by the application of quinine hydrochlor. in powder form, the layer of powder covering the entire surface, particularly the margins of the lesion. The hemostatic virtues of quinine are well shown in its use after curettage. The smaller ulcers are then protected by rubber plaster, the larger ones with gauze and some non-absorbent material. There is rapid formation of epiderm, smooth scars and a permanent healing. Even very extensive tuberculous areas may be treated in this manner, requiring, however, repetition of the dressing. Lymph nodes, after softening, are emptied and curetted, washed out with a ½% solution of carbolic acid, and then injected with a small quantity of 2% quinine solution. The bleeding is stopped by a tampon wet with the quinine solution, after which the tampon is removed, and a drain left in place. The cicatrix is smooth and there are no relapses. In more recent tunefaction and in marked caseation, iodoform glycerole is preferable. In spondylitic abscess, incision and curettage should be performed only when a fistulous condition present demands it. Otherwise, puncture and irrigation alone are needed, leaving us, finally, the quinine solution, which is well borne if the quantity be not too great. In caries of the ribs every bit of necrotic bone and cartilage must be removed, in order to avoid later, the formation of fistulæ. Where there are extensive wounds with unhealthy granulation, they are treated with quinine powder as in the open tuberculosis.

Tuberculous fistulæ are most favorably influenced by injections twice weekly, of the solution under the greatest possible pressure, so as to attain deep penetration. The patient being in such posture that the supposed tuberculous focus is at the lowest level.

THE CURE OF MYOSITIS OSSIFICUS TRAUMATICA BY FIBROLYSIN.—Amplifying the reports of Groskurth and Nikalai on the successful treatment of their myositis by fibrolysin, Dr. J. Aizner (*Munchener Med. Wochenschrift*, 1909, No. 15), gives a case where excellent functional results were obtained with this agent. A healthy, robust man, aet. 23, received a violent blow on the left thigh, just above the knee. In the region of the injury a marked tumefaction developed in the muscle. The knee joint was extended and could be flexed but little. The X-ray showed a delicate ossification in the equadriceps. Therapy consisted of rest in bed and injections of fibrolysin. In 40 days, 34 injections were made, i. e., 34 c. c. of the remedy. After nine injections the patient was able to flex the knee without pain to 100°; when he was discharged, the flexion was 50°, and the resistance nearly null. After about 5 weeks of fibrolysin treatment, motility became almost normal. As is well known, there are two stadia in myositis ossificus traumatica: 1. The stage of connective tissue induration; 2, the stage of ossification. Fibrolysin acts better in the first stage, whilst massage and motion are directly injurious. As to the resorbent powers of the agent where ossification is in progress, the author is unable to furnish any data. The skiagraphs taken during the course of treatment demonstrated an indubitable disappearance of trabeculæ, there being however, some of them left.

LYMPHATISMUS AND SCROFULOSIS.—The essential characteristic of a lymphatic child is that its organism shows great inclination to stubborn and relapsing inflammatory reaction (with a "sweating-out" of lymph) in which, both primarily and secondarily, the lymphatic tissues are markedly involved. This peculiarity is common to both lymphatismus and scrofulosis as chief characteristic, yet, these two nosologic types—lymphatismus is a congenital anomaly of constitution, whilst scrofulosis is to be considered as an acquired tuberculous syndrome—may be differentiated by careful anamnesis and by the tuberculin reaction which in lymphatism not infrequently is absolutely negative. Often the tuberculin test alone is able to give us sharp differentiation between the two morbidities, for the aspect presented by lymphatic children, their tendency to chronic eczemas, the presence of swollen cervical glands, the appearance of phlyectnulæ on the conjunctivæ, the excoriating nasal discharge, etc., would surely justify a diagnosis of scrofulosis, were it not for the absolutely negative result of the tuberculin test. These manifestations of the lymphatic diathesis during the first years of childhood have, therefore, nothing to do with tuberculosus. Lymphatism, the congenital anomaly of constitution reveals itself in early childhood by seborrhæ of the scalp, by repeated attacks of lichen urticatus, by eczematous eruptions and a great tendency to intertrigo, by the appearance of the so-called "mapped tongue" (which Czerny was the first to emphasize), and, finally, by the frequency of cramps (eclampsia infantum, laryngospasm) during the first year of life. In sin-

gle cases it was noted that the clinical picture of lymphatism rapidly changed to that of true scrofulosis (the tuberculin test being at first negative, later positive), in general, it may be said that in the overwhelming majority of scrofulous children, symptoms were present in the first year of life, which to-day we should be inclined to consider as characteristic of the lymphatic constitution. Lymphatism, then, appears to be a condition where an accidental tuberculous infection leads to the development of scrofulosis. The existence, therefore, of a family type of lymphatism easily accounts for the frequent scrofulosis observed in brothers and sisters.—Dr. Ernst Morro, *Deutsche med. Wochenschrift*, 1909, No. 18.

CANTHARIDES TINCTURE IN ACUTE NEPHRITIS.—By Dr. E. Lancereaux (*Bull. med.*, No. 13, p. 149-150, 1909; *Ref. Fort. d. Med.*, June 20, 1909, p. 663). Cantharides has been generally abandoned as dangerous. In contrast to many other medicaments, the mode of action of which we know little, we know of cantharides exactly upon which organ it acts. The author has employed this remedy in acute parenchymatous nephritis with oliguria and anuria respectively. To children he administers one drop; to adults five to six drops of the tincture of cantharides in a slimy vehicle (about 200 grams of gum mixture). He obtained rapid increase in the amount of urine, disappearance of edema and very rapid cure.

The name of this distinguished clinician may encourage the cautious adoption of this medication.—*Post-Graduate*, Aug., 1909.

THE UTILITY OF THE VAGINAL DOUCHE.—The utility of the vaginal douche depends on the axiom that living, flowing blood cures disease. The apparatus through which the vaginal douche accomplishes the hyperemia or its result is the genital inosculature circle. The method of applying the therapy through the vaginal douche is by excessive or exaggerated physiology—i. e., by congestion of the genitals. The stimulation of the genital inosculature circle by the hot vaginal douche increases the quantity of blood flowing through the genitals—the blood cures disease. Maximum engorgement of the peripheral viscus results in maximum visceral elimination, drainage.

A. The fountain syringe reservoir for the vaginal douche should be of 12-quart capacity. The simplest and most economical vaginal syringe is a 12-quart wooden pail.

B. The location of the syringe should be four feet above the patient.

C. The quantity of fluid administered in the beginning should be 2 quarts for patients unaccustomed to its use, and 4 quarts for those accustomed to its use. The quantity should be increased a pint at each administration to 12 quarts.

D. The temperature of the douche should be 105° in the beginning and increased one degree at each administration until it is as hot as can be borne (115 to 120°).

E. The duration of the douche should be 10 minutes for each gallon.

F. The time to administer the douche is in the evening immediately before retiring and in the morning (after which the patient should lie horizontally for 45 minutes).

G. The position of the patient should be on the dorsum.

H. As to the method of administering the douche the patient should lie on a sufficiently inclined plane to allow the returning fluid to drain into a vessel (pail, pan). The ironing board, washtub, or board resting on the bath tub conveniently serves the purpose. The douche should not be administered in the bed (unless ordered) nor in the standing or sitting posture or on the toilet seat.

I. As to ingredients a handful of sodium chloride (NaCl) and a half teaspoonful of alum should be added to each gallon, the sodium chloride to dissolve the mucus and pus, to act as a natural antiseptic and to prevent reaction. The alum is to astringe, check waste secretions and indurate tissue.

J. The vaginal tube employed in administering the douche should be sterilized, boiled, and every patient should possess one. The most useful vaginal tube is the largest that can be introduced or the one that distends the vaginal fornices the greatest, so that the hot fluids will bathe the widest surface area of the proximal or upper end of the vagina—the most adjacent to the uterine vessels (arteries, veins, lymphatics).

K. The utility of the vaginal douche is: (a) it stimulates contraction of tissue (muscle, elastic and connective); (b) it stimulates the contraction of vessels (lymphatics, veins and arteries); (c) it absorbs exudates; (d) it checks secretions; (e) it is a stimulant; (f) it relieves pain; (g) it cleanses; (h) it checks hemorrhage; (i) it curtails inflammation; (j) it drains the tractus genitalis. The usefulness of the vaginal douche depends on the quantity of fluid, the degree of temperature, its composition, the position of the patient during administration, and on systematic methods of employment.

L. Disinfectants in a vaginal douche are secondary in value to solvents of mucus, pus, leucocytes (sodium chloride).

M. The objects to be accomplished by a douche are: (a) The dissolving of the elements in the discharge, as mucus, pus, and leucocytes; (b) the mechanical removal of the morbid secretions, accumulations, and foreign bodies; (c) antiseptics; (d) diagnosis.

N. The requirements of a douche: (a) it should be non-irritating; (b) it should be a transparent solution; (c) it should dissolve pus and mucus; (d) it should be continued for months; (e) it should be omitted for three days during menstruation.—Byron Robinson, M. D., *Amer. Jour. of Surgery*.

DIET IN GOUT.—Sir Dyce Duckworth recently published an excellent article on the diet of goutily disposed persons in *The Practitioner*. He regards it as certain that the peccant matter of gout is produced within the body and does not enter infectively from without, as is the case in rheumatic toxæmia. No two individuals being alike in respect of their constitution or metabolic processes each patient requires special treatment. The author does not agree with those who declare in favor of special foods or against certain kinds. Notwithstanding the varied dietetic experiments conducted on certain patients the majority of sufferers still remain more or less gouty. Those who forbid red meats, salted food, sweetbreads, tea and coffee, potatoes and wine and all fermented liquors treat gout without reference to the patient. Sir Dyce Duckworth asserts with regard to ani-

mal food generally, that it is not only harmless, but beneficial to gouty persons, provided it be taken in moderation. There is no rule in regard to a preference for white meat over red meat, but liver and sweetbreads are not to be recommended, and strong meat soups, hare soup and beef extracts are to be avoided. Fish, especially white and fresh, is one of the best articles for the diet of the gouty. Sir Dyce finds it hard to understand why potatoes should be forbidden, as the largest eaters of them know nothing of gout. He regards this vegetable as quite harmless if plainly cooked. In regard to the prohibition against wine, he observes that many gouty persons are the better for a little good wine taken with one meal in the day, but most varieties of malt liquor are harmful to the majority of gouty patients. It will be seen that the author is opposed to the views commonly held regarding the appropriate diet for gouty persons. Some things to be avoided in the dietary of gouty patients, according to him, are lemon juice, vinegar and all sauces and relishes. The meals should consist of fresh food plainly cooked, as by roasting or grilling. Mustard may be freely taken. Salt should be very moderately used. A little good wine is helpful for elderly patients, but two to six ounces is sufficient, best taken with one meal only in the day. He concludes by saying that the question of appropriate diet for the gouty patient is a matter of as careful consideration as is the prescription of any particular treatment by drugs. The history of the patient should be carefully studied in laying down rules for diet. To say offhand that this or that is good or bad for gout reveals ignorance of the subject on the part of the prescriber. The keynote should be strict moderation. He quotes from Dr. Currie, of Liverpool: "Where the gout has continued long, the life is far advanced, the strength much impaired, the doctrine of abstemiousness is to be applied with very great caution; and if the frame be much emaciated it is not to be applied at all. In such circumstances a cordial regimen is the most safe, especially if it corresponds with long established habits, because it is now too late to aim at abating the violence of the disease, and the object is to keep up the strength under it. Abstemiousness might suddenly lower this, and bring on complaints for which the gout would be ill exchange."—*N. Y. Medical Journal*.

FILTRATION REDUCES TYPHOID FEVER IN PHILADELPHIA.—The report of the Director of Health for the first six months of this year shows a marked diminution in typhoid fever, and the cause of this change is attributed by the health authorities to the use of filtered drinking water. The total number of cases of typhoid reported since January 1 aggregates 1383, as compared with 2195 cases reported during the corresponding six months of last year, a decrease of 812 cases. The figures for the first half of this year are still more marked by comparison with those for the first six months of 1907, when 5005 cases were reported, or 3632 more than occurred this year. Based on the number of cases for the current six months, it is estimated that the total number of cases this year will not exceed 2000, or 80 per cent. less than the number reported in 1906. In that year there were 9721 cases reported, and at that time only a small section of the city was receiving filtered water. The following year, with the extension of the filtered water supply, the number of cases was but one-third, and by a

further extension of the filtered water last year another decrease of 40 per cent. was made. With the exception of parts of the four wards which still receive raw water, the whole of the city has been receiving filtered water since March 1. The reduction of the cases in typhoid may be further illustrated by the fact of the early months of 1906, when the weekly number of cases of typhoid fever was from 300 to more than 400. For the week ended June 26 only 17 cases were reported. In the week preceding 22 cases were reported, and in the week prior to that 15 cases, the smallest number in the history of the Bureau of Health. The mortality from typhoid has correspondingly decreased from 606 in 1907 to 351 in 1908 and 205 (estimated) in 1909.—*Med. Rev. of Rev.*

THE PRACTICAL APPLICABILITY OF THE OPSONIC INDEX.—Saathoff (*Munch. Med. Wchschrft.*, No. 15, 1908). The author was enabled to confirm the fundamental experiments of Wright to their entire extent, but in contradistinction to these findings he failed in a general way to harmonize the outcome of the reaction with the clinical phenomena in the practical utilization of the opsonin estimate. His work chiefly concerned staphylococcus and gonococcus infections, the statements of Wright being confirmed in a single instance only. The method was then studied in its individual stages in regard to the possible sources of error, and the author showed that there exists a very different behavior on the part of the sera of healthy subjects, such as are used for the determination of the opsonic index, as a comparative value, this behavior varying with the individual and with the time; the sera of patients likewise present a phagocytic index, subject to marked fluctuations. Furthermore, the counting of the leucocytes yields very unequal results, so that the liability to considerable error still exists in the counting of bacteria in 200 leucocytes. Finally very far-reaching changes in this terminal result may be produced through any trifling detail in the mechanism of the reaction, such as preservation of the serum, number of red blood corpuscles between the leucocytes, mode of mixture, width of capillary tube, etc. The following conclusions are arrived at: (1) On account of the complicated character and extremely difficult technique, the method enters into consideration only for certain institutions, preferably so situated as to have a special experimentator for the purpose. This detracts considerably from the value of the method for practical purposes. (2) On account of the wide and incalculable source of error connected with the establishment of the opsonic index, this method is of value in those rare cases only in which the findings are very pronounced. (3) For therapeutic application the opsonic index constitutes an unreliable guide.—*Med. Rev. of Reviews.*

OCCUPATION SYPHILIS AMONG MEDICAL MEN.—Every one who has had much to do with syphilitic patients must have been impressed with the fact that in some even a searching investigation of the history fails to show the existence of a primary lesion. In the majority of these, no doubt, such a lesion was present, but was either so trivial or so situated as to escape observation, or in the case of ignorant or careless patients never attracted attention. Still, now and then one meets with a case in which the presence of syphilis can only be explained on the ground that the virus

directly entered the circulation without a previous local manifestation at the site of infection. This condition has been termed syphilis d'emblee. A number of instances of this kind have been reported in medical men who have become infected in surgical and obstetrical work and been unaware of having acquired the disease until awakened to its realization by the appearance of the constitutional symptoms. The surgeon who operates upon an undoubted luetic subject is forewarned and will take every precaution against infection, but there always remains a certain number of cases in which, as in emergency work, it is impossible to acquaint one's self with the antecedent history of the patient or to make a sufficiently thorough examination to determine the presence of syphilis. Some persons—and not a few—especially when in good physical condition, show very little if any evidence of the existence of the disease. Furthermore, syphilis is a great imitator, and its lesions may so closely simulate other affections as to sometimes leave the diagnosis extremely doubtful.

Professor L. Waelsch, of Prague, who has recently written on the subject of occupation syphilis among medical men (*Munch. Med. Wochenschr.*, No. 17, 1909) confesses that formerly he was very skeptical as to the existence of syphilis d'emblee, but has since encountered several instances among physicians in whom the virus must have been carried directly into the blood vessels and lymphatics, without the occurrence of a primary lesion at the point of entrance. It has been his lot to meet with a surprisingly large number of cases of syphilis contracted by medical men in the exercise of their profession, comprising, in fact, 50 per cent. of all extra-genital infections observed by him. All of these stated that they were entirely ignorant of the existence of syphilis in their patients, while some of them were unaware of having had any abrasions on the fingers where such infection is most likely to take place. The primary lesion, if there was one, at first escaped recognition, usually appearing later as a slight purulent paronychia and then as a flat ulcer, which failed to heal under the customary treatment; and this, with the development of induration, excited their suspicion. The assertion of Brandeis that occupation syphilis among medical men runs a more severe course than in other persons, because of its late detection, has not been confirmed by Waelsch's experience, and there has been a notable absence of tertiary manifestations in these cases. Of course, the mere consciousness that a physician has innocently contracted the disease cannot but prove a severe mental shock, but this once past, his medical patients have always made the best of their misfortune.

How can the surgeon best prevent infecting himself from a syphilitic subject? Of course, such a thing as absolute prophylaxis is impossible, for, as already stated, a certain number of cases are bound to escape recognition; but this number might be materially reduced by more thorough routine examination. As the infection is most likely to occur on the fingers, anything which may cause excoriations, cracks or hangnails must be assiduously avoided, such as excessive manicuring or scrubbing of the hands or immersion in strong antiseptic solutions. If slight abrasions are present, Waelsch recommends that they be covered with collodion and rubber gloves worn, and these precautions should be redoubled if the patient pre-

sents positive evidence of syphilis, and the use of gloves never omitted under these circumstances.

The author makes another suggestion, and, we think, a good one, that every syphilitic should be told by his physician that in case he be attacked by any disease demanding operation he must never neglect to inform the surgeon of his luetic trouble. Thus, for instance, a syphilitic who consults a dentist should never conceal his condition. Probably but few will heed this advice, but it will, to some extent at least, diminish the chances of infection of the innocent.

If after examining or operating upon luetic individual, or any one in whom there is suspicion of syphilis, the physician should observe a wound on his fingers, or should notice it during operation, Waelsch recommends the immediate application of the Paquelin cautery, or, if this is not at hand, cauterization with fuming nitric acid or with chloride of zinc. Simple washing with sublimate solution is of little value. A paronychia or paronychia which proves refractory to treatment should be kept under careful observation, this being continued even after apparent healing has occurred.

Another question of importance is in how far the physician infected with syphilis should exercise his vocation. Waelsch makes some interesting remarks on this subject which are worth while mentioning. In his opinion, so long as there is any primary lesion on the fingers the practitioner should refrain from obstetrical, gynecological or surgical work, although this does not apply to medical practice if care is taken to carefully protect the affected part. In the secondary and tertiary stages the presence of lesions on the fingers or hands will also to some extent restrict professional activity, though in general the risk of communicating the disease is not great.

The lesson taught by this very instructive paper is that by the exercise of proper caution the greater number of syphilitic infections of this kind can be prevented, and that even though such cases are comparatively rare, they are sufficiently frequent to demand attention.—Editorial. *International Jour. of Surgery*.

THE DIAGNOSIS OF ACUTE PANCREATITIS.—Musser (*University of Pennsylvania Medical Bulletin*, May, 1909) reports nine cases of this affection, and states as his conclusions from the observation of these that the diagnosis must be based upon:

1. The previous history.
2. The occurrence of acute symptoms and shock, which were present in eight of the cases.
3. Upon the symptoms of inflammation behind the stomach, with rigidity of the left rectus, pain in the epigastrium, radiating more to the left, with tenderness on pressure. Vomiting occurred in all of the cases under observation.
4. An epigastric tumor, with a dull tympanitic note. This was present in seven instances. In three it was associated with dullness, with well-defined mass, readily determined by palpation as well as percussion.
5. Pain in the back, and especially in the costo-iliac space on deep pressure. This occurred in three instances of the six in which it was looked for.

6. The occurrence of diarrhoea was remarkable. It was present in seven instances. In not one of the cases were the symptoms suggestive of intestinal obstruction, as had been described by the earlier writers.

7. Acute anæmia. This was remarkable in four instances, both the red cells and the hæmoglobin falling below the normal. In each instance it was of secondary type, and leucocytosis attended the anæmia.

8. In eight of the cases there was a marked increase of the leucocytosis. In two, in which a differential count was made, the increase of the polymorphonuclears was noted.

9. The temperature throughout the course of the disease was usually subnormal, except in the course of another infection. In six of the cases the subnormal temperature was characteristic.

10. Dyspnœa was pronounced in eight cases, and seems to be a very striking symptom of this affection. Of course, it was more marked in the cases in which a large tumor was manifest, and yet in cases in which there was no accumulation of fluid the dyspnœa was marked. Fat necrosis was present at the time of the operation in this case.

11. The pulse was increased in frequency, but not to an extraordinary degree in all instances.

12. No report was made concerning the stool, as in every instance observations were not possible because of either the occurrence of vomiting, of diarrhoea or because the constipation required relief and forbade any attempt at the time to make observations. Hence the fat excess or the meat-ball test of Schmidt was not inquired into.

13. Cammidge's test was employed in four instances, and in two it was found to be positive.

14. In three instances general boardlike rigidity of the abdominal walls was very marked and simulated very much an attack of peritonitis.

15. Neither age nor sex was a factor in the diagnosis. Five were women, four men. Five were over 50 years of age, four between 30 and 40 years of age.

REMISSIONS IN GENERAL PARALYSIS.—Paretic dementia is incurable, but remissions in the course of the disease may occur; the patient, for a time, resuming his former mental health with persistence, however, of the somatic changes. Temporary disappearance of both mental and physical symptoms—intermissions—are very rare. The remissions, which usually last from a few months to several years, are most apt to occur early in the course of the expansive and agitated forms of paresis. In a series of seventy cases, the author has encountered only three patients in whom remissions occurred. The histories of these cases are included in his paper. The remissions lasted one year in the first case, about two years in the second, and more than five months in the last.—Morris J. Karpas, *N. Y. Med. Jour.*, July 17, 1909.

CHARLES D. FOX, M. D.

THE DIFFERENTIAL DIAGNOSIS OF GRAVE HYSTERIA AND ORGANIC DISEASE.—In a paper describing a doubtful case in which the diagnosis lay between hysteria and organic cerebro-spinal disease, Charles K. Mills expresses the belief that persistent foot clonus is almost invariably a sign

of organic disease, even though a form of pseudo clonus may be observed in grave hysteria and in severe neurasthenia.

In spite of the recent conversion of Van Gehuchten to the opinion that in some rare cases of hysteria the Babinski sign may be elicited, the author retains his belief that this phenomenon always indicates an organic disease, and especially one which affects the pyramidal tracts. Concerning true astereognosis and typical hemianopsia the author states that he has never seen a case in which these symptoms were of hysterical origin.—*Jour. of Nervous and Mental Diseases*, July, 1909.

CHARLES D. FOX, M. D.

COMPRESSED AIR DISEASE FROM A CLINICAL ASPECT.—The least amount of air pressure which may cause symptoms of caisson disease is about 15 pounds addition to the normal atmospheric pressure. This amount of compression, known as one or two atmospheres, is required in working at a depth of about 37½ feet. In round figures, about 2 pounds of additional air pressure is required for every 5 feet of submergence. A pressure of about 55 pounds is the highest in which work is done. The symptoms of caisson disease never appear while the men are working in an atmosphere whose pressure is constant, or in one whose pressure is increasing. It is only during or after decompression that attacks occur. The longer the period of incubation—which begins with decompression and which may last for from 12 to 16 hours—the less severe the attack. Attacks which appear later than 5 or 6 hours after decompression are usually not fatal.

The two main phenomena of compression are increased blood pressure and solution of air by the blood. Now caisson disease is caused by too rapid decompression because this renders the blood pressure still higher, by favoring the formation of air bubbles in the blood stream, and by the inability of the vasomotor system to accommodate itself to the pressure in the locks as rapidly as this pressure can be reduced.

Symptoms of the disease are the result of congestion of the spinal cord or brain or, in severe cases, of escape of air into these organs and of rupture of their vessels. Mild cerebral symptoms, however, are caused by mechanical disturbances of the internal ear.

There are two main types of the disease: The cerebral type, representing 10% of all cases, and the more common spinal type. The spinal type is characterized by pain in the distribution of the larger nerve trunks of the extremities, rapid pulse, and excessive perspiration. The reflexes are slightly diminished and, in spite of what is generally supposed, abdominal pain is unusual. In the more severe cases paraplegia sets in suddenly, usually without any premonitory symptoms and unaccompanied by severe pain. When hæmatomyelia occurs, however, the onset of paraplegia is more gradual and is then preceded by pain. In the latter case the reflexes are absent, a band of hyperæsthesia may be found to encircle the abdomen, and the urine and fæces are retained early in the course of the disease. A fatal termination may be expected if improvement does not take place inside of 6 months.

The cerebral type also may be mild or severe. The mild cases complain of vertigo, tinnitus, nausea, vomiting, and expressive perspiration, while

dilated pupils, accelerated pulse and lowering of the temperature may be found. These cases usually recover spontaneously and do not respond well to treatment by recompression. The severe cerebral cases are usually fatal, but most of them are benefitted, temporarily at least, by immediate recompression. The symptoms of these cases are deep coma, dilated pupils, cyanosis, pulse from 140 to 190, and respiration barely perceptible. If consciousness can be restored by means of recompression the patient, though usually hemiplegic, still retains a slight amount of power in the affected side. In fatal cases death occurs in less than 48 hours.

Prophylaxis includes careful selection of healthy, non-alcoholic men under forty years, and subsequent examination at frequent intervals of those accepted. The higher the air pressure the shorter the shifts should be. As carbon dioxide is more soluble in the blood than is air, the atmosphere of the tunnel should be low in its carbon dioxide content. It is essential that decompression should take place slowly. The ideal treatment consists in immediate recompression to about two-thirds of the pressure in which the case had been working previously. In a few minutes improvement usually begins and then the pressure may be reduced gradually. In mild cases decompression may be allowed at the rate of 1 pound in 4 minutes. The more serious ones should not be decompressed more rapidly than 1 pound in 8 to 10 minutes. While in the hospital lock the patient should be encouraged to walk, and if unable to do so, the limbs should be massaged. The medicinal treatment includes strychnia, gr. 1-30 hypodermatically every hour until three doses are given, and a strong purgative. If paraplegia is not immediately ameliorated by decompression it never entirely disappears. In such cases the cord has been injured by the pressure or by hæmorrhage into its substance. The subsequent treatment of such cases is the same as that of myelitis. A man who has had one severe attack should never work again in compressed air.

Two interesting cases are reported. The first one, illustrating the severe spinal type, was not fatal, and the myelitic symptoms improved to a considerable extent. The second case was one of the grave cerebral variety. While in the hospital lock the coma disappeared, and he was found to be hemiplegic and absolutely amaurotic. At the end of 3½ hours of decompression he had completely recovered except the blindness, and this condition disappeared within ten days.—L. M. Ryan, *N. Y. Med. Jour.*, July 31, 1909.

CHARLES D. FOX, M. D.

THE HYPOPHYSIS CEREBRI.—*Animal Experiments.* Excluding some sexual disturbances, loss of the posterior lobe occasions no characteristic symptoms; though injection of an extract of this lobe causes a rise in blood pressure and diuresis. Partial removal of the anterior lobes is followed by increased deposition of fat associated, in some cases, with polyuria, transient glycosuria, shedding of hair, decrease of sexual activity, and even atrophy of the testes and ovaries. Extracts of this lobe, however, seem physiologically to be inactive. Total excision of the whole gland, or of its anterior lobe, is incompatible with the prolonged maintenance of life.

Functionally, the hypophysis seems to be closely related with the other

ductless glands, as it is impossible to remove this gland without producing marked alterations in all of the others. It has long been recognized, on the other hand, that changes in the hypophysis may follow thyroidectomy or castration.

Clinical.—It is probable that there are two kinds of syndromes accompanying disease of the hypophysis and that these are due either to hypersecretion or to hyposcretion. Hypersecretion at an early age seems to cause gigantism, while acromegaly would appear to result from hypersecretion commencing in adult life. Actually enlargement of the pituitary body is found in a large majority of both of these conditions. Surgical confirmation of the theory that gigantism and acromegaly are sequellæ of hyper-pituitarism is afforded by a case operated by Hochenegg, and one operated by the author. In Hochenegg's case of complete hypophysectomy there resulted measurable diminution of the bony overgrowth. Partial removal of the anterior lobe, in the author's case, was followed by decrease in the size of the hands. The second syndrome, that due to hyposcretion, is, in the opinion of the author, the effect of pressure of a tumor, by causing diminution of the secretion of the gland. The manifestations of this condition are excessive adiposity, small stature, hypotrichosis, genital changes, polyuria, and glycosuria. The disease, when occurring before puberty, causes sexual infantilism, while impotence, amenorrhœa, and loss of the acquired signs of adolescence follow the onset of the condition when this occurs in the adult. Besides the symptoms already mentioned of these two syndromes there are others which are local in character. Among these are headache, amblyopia, bitemporal hemianopsia, optic atrophy, and enlargement of the sella turcica.

Treatment.—Simple incision of the dural pocket which encloses the enlarged gland may completely relieve the local pressure symptoms. In hyperpituitarism, as evidenced by acromegaly or gigantism, partial hypophysectomy of the hypertrophied gland or removal of the glandular tumor are indicated. Hypopituitarism necessitates removal of the tumor which causes the compression together with subsequent administration of extract of the anterior lobe.—Harvey Cushing, *Jour. of the A. M. A.*, July 24, 1909.

CHARLES D. FOX, M. D.

PITUITARY TUMOR IN ITS SURGICAL RELATIONS.—A class of cases comprising tumors of the hypophysis which are unaccompanied by acromegaly is described by Archibald Church. These cases, in addition to the general symptoms of brain tumor, present special ones which are peculiar to the condition. Among these are bitemporal hemianopsia, and physical and sexual under development. The X-ray is valuable in arriving at the diagnosis, as any enlargement of the sella turcica is indicative of enlargement of the pituitary body. Notwithstanding the views of certain writers, to the effect that the hypophysis cannot be removed without fatal sequellæ, this operation has been performed successfully in a number of cases. The author prefers the nasal route in operating for these tumors. Six cases of tumors of the hypophysis without acromegaly are reported in detail by the author. In three of these operations were performed with the following results: Case 2. Following operation for hæmorrhagic

cyst of the pituitary, the patient made a satisfactory convalescence, but died in eighteen months. Case 3. Death from post-operative collapse following enucleation of a cystic adenoma of the pituitary. Case 4. Epithelioma of the pituitary, operated by von Eiselberg, by the nasal route with satisfactory results.—*Jour. of the A. M. A.*, July 10, 1909.

CHARLES D. FOX, M. D.

A CLINICAL STUDY OF OPTIC NEURITIS IN ITS RELATIONSHIP TO INTRACRANIAL TUMORS.—From a careful analysis of about 400 cases of cerebral tumor, Leslie Paton is enabled to draw some important conclusions, some of which may be summarized as follows:

Primary pressure atrophy of the optic nerves may be caused by the constant pressure of a tumor upon the chiasma, or on the optic nerves, and this atrophy may occur without any premonitory œdema of the discs.

The greater the distance between the tumor and the chiasma, or the cortex, the less apt is optic neuritis to occur.

There exists, in about 50% of cases, a difference in the degree of intensity of the neuritis in the two eyes, but this difference possesses no localizing significance.

The amblyopia and the œdema of the discs seem to be independent of one another.—*Brain*, Part CXXV.

CHARLES D. FOX, M. D.

TREATMENT OF BOILS.—Dr. G. T. Jackson (*Am. Jour. Med. Sciences*, June, 1909) believes that boils have nothing to do with constitutional states, but are due to local infection with staphylococci. They are most often seen on the back of the neck because this region is subject to slight traumatism, as from rubbing of a rough collar or a collar button, this giving the pus organisms a chance to enter the skin. Crops of boils are due mostly to bad treatment of the first boil, especially the old method of poulticing, incision, squeezing out the pus and resuming the poultice, which disseminates the infection. The treatment, which he has employed for many years requires only a small piece of wood sharpened to a fine point, a little absorbent cotton, a 95 per cent. solution of carbolic acid, and a 5 to 10 per cent. ointment of salicylic acid. As soon as the boil has pointed, a small bit of cotton is wound about the pointed stick, dipped in the carbolic acid, and bored into the softened point of the boil. This gives a chance for the pus to escape and thoroughly disinfects the cavity of the boil. The boil is not to be squeezed. The surface of the skin in the neighborhood of the boil is then washed over with peroxide of hydrogen, or a solution of bichloride of mercury, 1 in 1,000, and the salicylic acid ointment spread on old washed cotton or linen cloth, or several thicknesses of gauze, laid over the boil and the adjacent region. If it is a very large boil, the operation may have to be repeated the next day. The ointment is to be kept constantly on the affected part for a week. A few new boils may appear for a few days in the region, the result of the infection of the skin follicles before this treatment was instituted. They are to be treated in the same way, and a cure will soon be attained. If a patient presents himself before the boil has pointed it may be aborted by injecting into it a drop or

two of a 5 to 10 per cent. solution of carbolic acid, or touching its top with 95 per cent. carbolic acid, while the above mentioned salicylic acid ointment is used as a dressing.—*International Jour. of Surgery.*

THE OCULAR SYMPTOMS OF BARLOW'S DISEASE, WITH THE REPORT OF A CASE.—Dr. J. Hiland Dewey stated that the ocular symptoms of scurvy in children are ecchymosis of the lids, ecchymosis of the conjunctiva, hemorrhage of the conjunctiva and exophthalmos. Of these symptoms, exophthalmos is alone peculiar to infantile scorbutus. Optic neuritis and retinal hemorrhage as occurring in adults with scurvy has not been observed in children, but the only record of an ophthalmoscopic examination having been made was one by Spicer in Nettleship's clinic, in which the findings were negative. Sutherland and Barlow in post-mortem examinations, record extensive hematomas of the dura, which might give rise to either of these. A black and blue eye in an infant, and due to no violence, as pointed out by Cheyney, can rarely be due to anything but scurvy. The proptosis in one eye with ecchymosis of the lid may be followed in a few days by a similar process in the other eye, though this is apt to be less severe. This is caused by a hemorrhage into the easily distended space between the roof of the orbit and the periosteum.

The case reported was one in which a hand-fed infant, aged 11 months, had had a proptosis suddenly develop in one eye, followed in a few days by a marked bulging of the fellow eye. The eye lids of both were ecchymotic, and there was a slight ecchymosis of the conjunctiva. The child was pale, emaciated and cried on being touched. There was a marked enlargement of the left thigh and knee, the left tibia and fibula were fractured, a large brawny induration existed in the left leg, and two small ones in right leg. A swelling was present above each wrist, a slight elevation of the gums could be noted around both upper and lower incisors, which were the only teeth present; had drivelled blood, and vomited blood at times. Black stools at intervals. Rapid recovery under anti-scorbutic diet.—*Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

TRAUMATIC RECURRENT CORNEAL NEURALGIA.—A case is reported of this rare condition. The patient was struck on the left eye by an elastic garter. There was a dull pain, which instead of decreasing during sleep, became more and more lancinating, especially on opening and closing the lids. He passed a bad day, and consulted Cauvin that evening, fearing he would be unable to sleep. His upper lid was edematous. Attempts to separate the lids elicited cries of pain. If they are held out of the way, and the globe raised, the pain is relieved almost instantly. There are lachrimation and photophobia. There is considerable pericorneal injection. By means of the lens, a small vesicle, the size of a pin's head, is found at the lower end of the vertical meridian, some millimeters from the limbus. It consists of an elevation of the corneal epithelium. Allowing the lid to strike this causes intense pain, which is relieved by lifting the lid.

The supra-orbital nerve is painful at its point of exit. Tension is diminished. Treatment was sedatives, hot compresses and ointment of

cocain, atropin and iodoform. This gave no relief. Massage around the orbit for 15 to 20 minutes with 10% dionin ointment was tried. This produced almost immediate relief, and all traces of the corneal lesion disappeared. Occasionally he has pain in the eyes in the morning, especially after he has had sexual intercourse the preceding night. Three months later he was struck on the same eye by a piece of confetti, which in a few hours later gave rise to an attack similar to the above. Similar treatment caused cure at the end of a week. Nine months later, patient was struck on the same eye by his spectacles, and went through a similar attack. Injection of sterilized air had no effect; dionin again gave relief.—Dr. Ch. Cauvin, Nice, *Archives d'Ophthalmol.*

WILLIAM SPENCER, M. D.

ACETONE IN INOPERABLE CANCER OF THE UTERUS.—Gellhoon (St. Louis), after reviewing the sad story of fruitless endeavor in the treatment of cancer says these modern methods comprise electricity, palliative operative means and biologic or biochemical methods. Cataphoresis has never been able to gain a foothold in the profession. The Roentgen rays seemed to offer a rather promising prospect, until the reaction set in. The author says he is satisfied they are positively of no avail. The first favorable reports by de Keating-Hart with "fulguration," were soon followed by the publication of distressing failures.

Cancer is increasing in frequency and with it the number of inoperable cases. Acetone promises to meet some of the requirements of a palliative method. Its action depends upon its intense hygroscopic qualities. The treatment should be preceded by a thorough excochleation of the ulcerating area, so that the penetrating power of the acetone may not be uselessly spent in hardening any dead necrotic tissue. After drying the curetted cavity, a quantity of acetone is applied through a Ferguson speculum, while the patient is in the Trendelenburg position. The excess is allowed to run out, and the cavity packed with gauze soaked in acetone. The treatment is repeated two or three times per week, beginning on the 4th or 5th day after operation. Care must be taken to prevent the acetone from running over the vulva and perineum. The latter may be protected by applying vaseline. A tampon saturated with vaseline may also be placed in the lower part of the vagina. The effect of this treatment is to check oozing instantly; the crater becomes covered with a thin whitish film. The normal vagina is not appreciably irritated. The application does not cause pain, except an intense burning if the acetone has touched the vulva. Cool water relieves it. The remote effects are a marked reduction of the intense odor; the discharge at first becomes watery and gradually disappears; the hemorrhages fail to recur. After two or three weeks' treatment, a considerable diminution in the extent of the wound cavity is noticeable. The walls of the crater become smooth and firm. The absence of weakening hemorrhages and discharges, the general condition of the patients improve visibly. The pains caused by the extension of the cancer to adjoining organs or nerve trunks beyond the reach of the acetone were not relieved, and anodynes were required. Maier says that pain could always be controlled with aspirin.—*Am. Jr. Obs.*, Vol. 59, 799.

THEODORE J. GRAMM, M. D.

POST OPERATIVE PSYCHOSES.—Kelly has found that the period of greatest frequency is between thirty-five and forty-five years of age. Milder cases of mental aberration occurred once in every twenty-six cases. The frequency of definite insanity after operation was represented by 40 cases in 1,600, or one in every 400, less frequent than in the series of Werth and Urbach. From an analysis of these forty cases, the author concluded that the kind of operation, its duration, its severity, and the anæsthesia had but little to do with the production of the condition, for in this series the operation most frequently followed by mental trouble, was perineal repair for relaxed vaginal outlet. The ovaries were removed in twelve of the forty cases. Almost every form of gynecological operation could be followed by this condition. Heredity is an important factor, and above everything else the mental condition of the patient determined the result. The history of an unstable nervous system, prolonged worry and dread of the operation were the most influential causes. The commonest kind of insanity after operation was the acute hallucinatory confusional, but any form may occur. The author had had ten acute manias, four melancholias, and fifteen acute hallucinatory confusional insanities. The majority of cases began between the second and tenth days after operation, some immediately after it, and some later than the tenth day. The duration of the insanity varied in these patients all the way from two weeks to a lifetime. The prognosis is favorable. The author advises caution in committing these patients to insane asylums.—*Amer. Jr. Ob.*, Vol. 59, 1035.

THEODORE J. GRAMM, M. D.

RENAL EXCRETION DURING CHLOROFORM AND ETHER ANAESTHESIA.—Bovee (Washington, D. C.,) has found that the rate of excretion of urine is markedly lessened under anæsthesia produced by ether and by chloroform. Such diminution is greater from chloroform than from ether. While chloroform produces a diminution in urea output this continues to maintain a nearly normal proportion to urinary excretion, while ether produces a greater proportionate lessening of urea than of the urine. These two anæsthetics when carefully and skillfully administered have little effect on the production of casts and albumin in the urine, inducing it in some, stopping it in others, and in others either not producing it or not materially modifying such production. The Trendelenburg position greatly retards the rapidity of urinary output.—*Amer. Jr. Obs.*, Vol. 59, 1004.

THEODORE J. GRAMM, M. D.

MOVABLE KIDNEY.—(Baldwin, New York). The tendency to reconstruct our indications for a number of major operations is often encountered. Baldwin's article is in accord with this tendency. Unfortunately the article cannot be abstracted in brief with justice to the author or to the subject in general. As indicating the drift of the article, a few paragraphs may be cited. Thus: Glenard, in 1885, demonstrated that in a great many cases there was an associated enteroptosis, and that certain symptoms were due to the kidney displacement and others to that of the gastro-enteric tract. It is important to recognize any neurotic element, to determine whether the symptoms are due to the neurosis or the neurosis to the presence of the movable kidney.

The most important point is to recognize the patient of neuropathic stock who all her life has suffered from something or other. Opinions and the results of various methods of treatment vary greatly. Aaron, of St. Louis, believes that the days of kidney fixation are numbered. That the movable kidney is only a part of the general ptosis, and fixing one organ will not relieve the general condition. He states that the cases where the kidney alone is movable are those which give few or no symptoms. His results in over 600 cases with properly fitting bands have proved eminently satisfactory. He holds that surgical work sets up an abnormal adhesion and fixes a mobile organ which may aggravate the symptoms they are trying to relieve. Keys concludes that operation often fails to cure nervous and digestive symptoms. In view of this fact, one must hesitate to elect nephropexy which may prove a failure or worse. Treves used a truss in 300 cases with perfect results in 95%, and has abandoned the operative treatment, except in urgent cases or where the truss could not be worn. Watson Cheyne, of London, believes that when grave symptoms are present, Dietl's crises, intermittent hydronephrosis or hematuria, operation is essential. W. W. Keen reports 283 cases of nephropexy with 65% cured, 10% improved, 22% failures, and 1.28% fatal, and advises operation only where other measures have failed. Howell and Wilson, in their exhaustive article formulate the indications for operation as existing in cases showing acute exacerbations of renal pain accompanied by vomiting and hematuria; where there are pathological changes in the kidneys; where the kidney is causing changes in other organs, and in cases of severe aching post renal pain in which truss or belt has failed. The operation is contraindicated in the presence of Glenard's disease, procidentia, and neuroses.

The opinion of the writer is that movable kidney has had much laid at its door for want of an accurate diagnosis that should rightly have been charged to other organs and conditions; that operation is seldom the best treatment, and that movable kidney is often a symptom of a very complex condition.—*Amer. Jr. Obs.*, Vol. 59, 619.

THEODORE J. GRAMM, M. D.

BACTERIAL VACCINES.—Oastler summarizes the results of his studies as follows: Apparently favorable results have been obtained in the use of vaccines of streptococcus, staphylococcus, *B. coli.*, *B. mucosus* and gonococcus. All but gonococcus vaccines should be autogenous. Vaccines are not cure-alls, but seem to aid materially in combating the septic process, the effect being gradual and progressive. They are required especially when the blood shows poor resistance, i. e., low leucocyte count and high polymorphonuclear. In violent cases of acute sepsis, no resistance can be created, and no effect obtained. Wound discharge increases soon after injections. Good results have been obtained with all the organisms tried, but the least satisfactory with the streptococcus longus. The pulse may remain rapid some time after the temperature falls. As yet there have been no ill effects from injections. Leucocyte count with polymorphonuclear count gives the best indication of the resistance of the patient.—*Amer. Jour. Obs.*, Vol. 59, 594.

THEODORE J. GRAMM, M. D.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY A. LEIGHT MONROE,

Miami, Florida.

HOMOEOPATHIC REMEDIES IN PULMONARY TUBERCULOSIS.—In the *British Homoeopathic Review* for August, appears a most valuable and complete article on the Therapeutics of Tuberculosis, by Dr. Edwin Wheeler. Beginning his discussion of the homœopathic remedies with indication for the use of tuberculin, he continues as follows:

So far, I have spoken as though the presence of tubercle bacilli were enough indication for tuberculinum. But I think although it will seldom do harm under these circumstances, if used with caution it will do most good when most indicated, and I want to emphasize the indications for it, the general indications suitable to any case of tuberculosis, and also for those cases that threaten to develop the disease. They are briefly: debility, which causes the slightest exertion to aggravate the symptoms; tendency to sweat; palpitation on exertion. This group of symptoms, and others, point to its usefulness in post-influenzal conditions; melancholy disposition, not the classical hopefulness of phthisical patients; headaches with flushes of heat; thirst; constipation; (this last is a specially important symptom); emaciation. The fat, flabby patient who needs calcarea so often is not the typical tubercle patient, although after a course of calc. carb., tuberc. will often be able to take hold of such a case. The typical cold damp feet of calcarea belong to tuberculin, but, though the patient feels the cold, he likes the fresh air—a symptom resembling a prominent iodine symptom, to which drug, indeed, tuberc. presents many affinities. Enlarged tonsils and adenoids, tendency to parasitic skin eruptions like tinea versicolor and skin pigmentation, are certainly also general indications for the remedy.

Bovine tubercle and avian I prefer in acute cases, the latter especially in exacerbations of chronic pulmonary cases with profuse expectoration. The 100th is my favorite potency, but I repeat it generally every twenty-four or forty-eight hours till I see some improvement.

Of other nosodes, syphilinum must not be forgotten. Like tuberc., it can affect every tissue in the body, and will sometimes bring about a reaction when tuberc. fails. The great indication is the marked nocturnal aggravation of symptoms < sunset to sunrise. Dull, stupefying headaches I have also found to be often relieved by it. Constipation is usual; especially may it be indicated in tuberculous iritis.

The influenza poison should be borne in mind, as an attack of influenza may undoubtedly depress resistance to tubercle to the danger level; there-

fore, as a remedy it should have the power of raising a level otherwise depressed. It is for commencing more acute cases. As a rule, it is too powerful to bear frequent repetition, but acute cases, as usual, will stand it given more frequently than chronic.

Rosenberger's tests have shown that while the tubercle bacillus can practically always be recovered from the blood in tuberculosis, it is seldom accompanied there by any other germ, except now and then the pneumococcus. Nevertheless, in old-standing lung cases there are often streptococci or staphylococci in the sputum, and it is occasionally of service to try the corresponding nosode, preferably made from the patient's sputum, as there is great variation among the streptococci, at any rate. As far as germs are concerned for indications, I should say the purer the culture in the tissues the greater the indication for the nosode; therefore, these latter kinds will be more often wanted where the tubercle bacilli are few and the cocci numerous. This consideration leads me on to the last of the nosodes which I shall mention. This is prepared from a diplococcus which is found in about 25 or 30 per cent. of pulmonary cases, and so far it is only in pulmonary cases that I have used it. When present the germ seems to exercise a retarding influence upon the tubercle bacillus, and, further, it appears able without tubercle bacillus to produce the symptoms and physical signs of phthisis. I have known three cases all diagnosed with justice as tubercular wherein only this germ was ever found. Therefore its resemblance in action is close, and I think it may prove a useful remedy. It is indicated for rather well nourished cases, of cheerful temperament, with scanty expectoration, though often troublesome cough. I give it in lower potencies, 3 and 6, for I do not regard it as nearly so powerful a poison as tuberculin. It may be used for commencing cases of phthisis. Before leaving the nosodes, I may mention that I have had it in my mind to use anthracinum for acute pulmonary cases with great prostration, but have not any experience of it to lay before you. These toxins are among the most powerful agents at our disposal, and we should lose no opportunity of defining their spheres and extending their use whenever it seems reasonable.

Let us now turn to remedies of a non-nosodic character. Here, as I warned you, I can only give you a selection. I shall try to give you the general indications for each. The particular local indications frequently follow from the general, but for a disease like tuberculosis, if the general symptoms seemed to match, I should not hesitate, although the particular were not so much in evidence. First, then, sulphur, and its allies hepar sulph. and psorinum.

We often find sulphur indicated, and when the case is an early one it will do nothing but good. The thin, dyspeptic patient, with the irregular congestions of sulphur, the local flushings, the mid-day and nocturnal aggravations, the itching, dirty-looking pigmented skin, chronic catarrhs and burning pains—all these symptoms will frequently be noticeable in cases of tubercular glands or peritonitis and pulmonary tuberculosis. If it is certain that the cases of pulmonary disease are early, sulphur will often start them well on the road to cure, but so often in these cases there is more disease than shows; this results in a slowness of response that in itself may look like another indication for sulphur, and yet to administer

it may mean to rouse to activity disease that is better left alone. Sulphur will start suppuration where there has been little or none, and the last state may be worse than the first. Now this warning is one that has often been given and often scorned. Personally, I believe it to be a real danger. Certainly sulphur will often aggravate late phthisis, and as certainly it will often help early phthisis. The cases that want discrimination are the latent ones. The suppuration that follows is an attempt, no doubt, at recovery, initiated by the sulphur acting as a tissue stimulant, but if there is not vitality enough to meet the demand that a deep-seated abscess makes on the body, the process will hasten the end. Exactly the same phenomenon I have seen several times in a sanatorium achieved by exercising a patient too soon. The temperature will have been good, the progress favorable, but really the appearances are deceptive—the disease is latent, not disappearing; exercise and the deeper breathing caused by it open up areas better left alone. Suppuration follows, and advancing toxæmia and death. These considerations apply mainly to lung tubercle. In tubercle elsewhere, unless deeply seated, sulphur, if indicated, will do good; give it infrequently and in high potency, though as a means of rousing a sluggish system to reaction. Dr. Schulz has paralleled homœopathic experience with daily doses of the strong tincture. Still, I prefer the potencies as a rule.

Psorinum and hepar have many resemblances; they are more likely to be thought of for children. Sourness of sweat, sour smelling, chronic diarrhœa in suspected tubercular peritonitis and aggravation in the open air. Hepar sulph. is a very good remedy to begin the treatment of gland cases if the symptoms at all correspond. It has an extreme degree of sensitiveness to external impressions among its prominent symptoms. In lung cases, although it needs the same caution as sulphur, yet its calcarea element, I think, makes it less dangerous, and were sulphur strongly indicated, and my mind in doubt as to the wisdom of giving it, I should feel hepar sulph. to be a reasonable compromise. Hepar sulph. has, I think, a definite specific power over the ordinary pus cocci, and if suppuration is free and these cocci present it might be given on that indication.

Calcarea is a more universally needed remedy, perhaps the most valuable of all the general remedies for tuberculosis, especially in pre-tubercular conditions—the fat, flabby, pale children, with tonsils and adenoids, and enlarged glands, with cold feet and sweating of the head at night; with the dyspepsia that is so often the first symptom of phthisis, with its dislike of fat and milk, sour eructations, the aggravation of symptoms from cold and damp, dislike of open air, desire for warmth. Then the tickling cough with scanty expectoration suggests its use in early phthisis. The lowered blood coagulability that shows in chilblains and œdemas and hæmorrhages occurs very often in tubercle and indicates calcarea in potency and is cured by it as effectually as by the fashionable big doses of calcium lactate. The patients mentally are slow and apprehensive; the condition of tubercular peritonitis is paralleled in the symptoms, and in meningitis it is, perhaps, as hopeful a remedy as any for a rather hopeless condition. My experience leads me generally to prefer calc. carb. in potencies from 12 to 30, and I find I can repeat it with advantage more frequently than sulphur.

Of the compounds of calcaria: the phosph. is very often useful in peritonitis and gland cases, less often, in my experience, in chest cases, except quite chronic ones. Routine treatment is always to be deprecated, but it does happen sometimes with lung cases that they have to be for months together away from the immediate care of their physician, and some kind of routine treatment becomes almost inevitable. Under these circumstances to give calc. phos. and ars. iod. on alternate days is a procedure I can recommend.

Passing now to arsenic and its compounds. The restless, fidgety, arsenic temperament is very different from the phlegmatic calcaria temperament, but we need to remember that a temperament cannot do more than show for us those individuals who will probably most quickly respond to a drug; it does not bar out of the drug's sphere of action every other kind of nature. Apart from temperament the arsenic patient, like the calcaria, hates cold and wet, his mucous membranes are attacked in an irritative way without much secretion; he is thirsty, there is marked hæmorrhagic tendency, and the patient is anxious and frightened—again, anything but of a hopeful disposition. Pains are apt to be burning, like those of sulphur. Sweat and skin inflammation come well within its sphere of action. Of its compounds the calcium salt has disappointed me, the antimony salt is very useful in old cases with much emphysema and tendency to bronchitis, and the red sulphide is a very potent preparation from which, I think, much may be hoped, and, though as yet I have not used it much in tubercular cases, I am inclined to think that it, like hepar sulph., might be given where sulphur seems indicated but there is fear of aggravation from it. The salt most used is the iodide. Its value in glands and old pleurisies and peritonitis and lupus is well known; with regard to the lungs, it is apt to be used in rather a routine way. There are two well-marked classes of patients seen in sanatoria. The first resents every detail of the treatment, fresh air makes them shiver, and the sight of food disgusts them; the second can eat without difficulty and can never have enough air. The first class are very likely to need arsenic, the second are the iodine patients. If a patient is hungry and yet thin, and longs for the air, iodine is almost sure to be the remedy. But there is a large class between these two extremes, and it is from among them that the patients are drawn who will benefit from ars. iod. Generally they have scanty expectoration and find it difficult to gain weight. They are inclined to despondency, and the physical signs show a tendency to form fibrous tissue, and yet the disease smoulders on. I like the lower triturations 3x and 4x.

Iodine I have spoken of, but there is a compound of it worth mentioning—namely, iodoform. For tubercular meningitis I think it is often indicated. It has the < from heat of iodine and drowsiness is a marked symptom. It has caused many pains in the chest, and I think it has a value in pulmonary tubercle. If iodine seemed indicated and disappointed me, I should give iodoform a trial in the lower potencies. Iodine does well in acute cases, but the most usual drug for acute cases of lung and laryngeal tubercle and of caries is phosphorus. You may remember that there is some evidence that it affects favorably the opsonic index to tubercle, and in any case the symptoms often warrant its use. Wet weather and open air aggravate cough and many symptoms, but warm food and

drink < digestive symptoms. Exertion <. Inability to lie on the left side is a symptom I have often confirmed. There is marked hoarseness, even aphonia, spasmodic tickling cough with scanty expectoration, often streaked with blood; the conditions that call for it are generally acute. I have found it advantageous to give phos. by day and bell. by night in acute cases (a recommendation of Dr. Moir); they seem to go well together.

Ferr. phos. is another remedy useful in acute lung cases with hæmorrhage, especially cases where hæmorrhage is the first symptom in delicate-looking subjects. As you know, its indications closely resemble those of acon., but the pulse is less full and tense and hæmorrhage is more marked, though of course, acon. is a hæmorrhagic remedy also for recent cases.

Speaking of ferrum salts, the iodide is worth remembering in tubercle. Chronic enlarged glands will do well on the administration for successive fortnights of iodide of calcium, barium and iron, and in chest cases with iodine symptoms and hæmorrhage, remember ferr. iod. For recent pulmonary hæmorrhage I prefer ferr. acet. to any other remedy.

Stannum is a remedy for lung cases, and tubercle elsewhere seems less under its influence. Profuse expectoration of pus, characteristically tasting sweetish, is an indication. I prefer the iodide of stannum, and it is a remedy that needs to be given persistently.

Sanguinaria is another remedy for lung tuberculosis. This belongs characteristically to cases passing from the acute to the chronic stage. Hectic fever, flushed face, especially the circumscribed flush, considerable expectoration and the hopeful disposition.

Agaricus is worth mention in early cases where tendency to perspire and slight evening rise of temperature may be the only suspicious symptoms.

I am not attempting to give you more than a fraction of possible remedies; if, therefore, I name the balsam of Peru as a possible aid to chest cases with long-standing suppuration, it is chiefly to give a warning not to use this remedy unless the kidneys are absolutely sound. We have all seen old phthisical cases end with albuminuria, no doubt due to lardaceous degeneration of the kidney, and I have thought once or twice that balsam of Peru precipitated this catastrophe. In old-standing cases where there is evidence of general toxæmia with prostration, I have found crotalus and naja rally a patient well, at any rate for a time. I was therefore the more interested to read in an American journal recently that a non-homœopathic physician had treated advanced phthisis with success with rattlesnake venom. He gave quite small doses. There is plenty in the pathogenesis of crotalus to warrant its use for many tubercular conditions; the hint may therefore be useful to us. While still speaking mainly of pulmonary cases, let me say a word on lachnanthes, a drug, I think, unduly neglected by us, perhaps because of its prominence in a much-advertised treatment. It has great value in established chest cases and threatening cases, and, I think, in tubercle elsewhere, or a tendency thereto. The indications for its use are: much coldness and chilliness, and especially chilliness between the shoulder-blades; pain and stiffness in the back, tendency to sweat. These, with physical signs giving rise to a suspicion of tubercle, warrant its use. I generally give unit doses of the mother tincture once or twice a week.

Returning now to more general remedies for tuberculosis, I must not

omit lycopodium, since it is a remedy used less frequently than its marvellous powers deserve. Its favorite type of patient is pre-eminently a tubercular one—the patient of keen intellect and poor physique. Its time modality, again <4 to 8 p. m., is characteristic of many tubercular cases, and where it is well marked this alone forms a good ground for giving lycopodium. Unlike phosphorus, its subjects prefer warm food, and, unlike silicea, they resent wrapping up. It has the kind of constipation that belongs to tubercle so often and dry-teasing cough. Also, however, chronic catarrh with much muco-pus is an indication for it. It prefers the right side, and on the whole goes with iodine, the liking for fresh air being a strong bond. We think of it in gouty joint affections, but it will often help chronic tubercular arthritis. In my experience it must be given either in 6x trituration frequently or in isolated doses of the 30th and upwards. It goes well with chelidonium, which, by the way, is much praised by Dr. Nash for right-sided phthisis. The characteristic seat of chelidonium pain is close to one of the favorite areas for commencing lung tubercle, and the hint may be worth noting.

Kal. carb. has the halo round it of Hahnemann's own recommendation, and, though I have left it late in my list, is one of the first remedies to be considered. It is one that corresponds most to the pains in the chest that sometimes come in tubercle of that region—stitching, lancinating pains, $>$ during rest, $>$ lying on the affected side; in this unlike bryonia pains, but I fancy bryonia's power over chests is most shown in non-tubercular cases. The early morning aggravation of kal. carb. is very important from 2 to 4 a. m. The early morning is a time for all the kalis, but as far as tubercle goes, kal. carb. is much the most important. The right hip is a special seat of its activity; indeed it is a right-sided remedy. Mentally, the patients are peevish and irritable. Heart symptoms, especially palpitation, with feeble action and weak pulse, call for it. Its patients dislike open air and damp, and it goes well with phos. and also with nitric acid. On the whole it befits middle and old age more than the tubercle of youth. Our colleague, Dr. Stephenson, confirms weak and rapid pulse as an indication, and also thinks the inverse type of temperature calls for kal. carb.

The last remedy I shall weary you with is silicea. This in its relation to suppuration is a chronic pulsatilla, and for fistulæ and old suppurations is invaluable. It is for the slack patient without any strength of character, for children who do not seem to have any life in them. It has a definite relation to scar tissue, and will help old fibroid phthisis sometimes quite considerably. Its subjects are always chilly and want to wrap up. They sometimes cannot take milk. Like phos., warm food, $<$, and it goes well with phos. For tubercular glands it is often most useful, also for bone cases and joints, but the silica marina in lower triturations is even more active and efficient in dealing with ordinary bland enlargements and commencing suppurations. I have seen some surprising results in recent cases, and, although I cannot be sure that all were tubercular, there was enough suspicion to make me give it a strong recommendation.

Now from sea-sand I pass to sea-water. You are probably aware of the French treatment by sea-water injections. Our colleague, Dr. Arnulphy, thinks highly of it, and has kindly written for me a page or two, of his experience. He says: "Of late years the treatment of tuberculosis has been, approached in France from an entirely new point of view, based

upon Mr. Rene Quinton's theory of the oceanic origin of all living creatures. The distinguished Professor of Physiology at the College de France contends that life on our planet first appeared in the seas of the primary epoch, and that from that remote period up to the present time animal life had a tendency to keep to its original, marine environment. It must be confessed that geology and palæontology lend support to the theory. On the other hand, laboratory experiments and chemical analysis confirm it also.

"Moreover, for some years past, extremely remarkable results seem to have been derived from the use of subcutaneous injections of sea-water in the treatment of diseases of the skin, kidneys and intestines, especially in that form of gastro-enteritis which proves generally fatal to unweaned infants.

"The treatment has also been applied to tuberculosis in all of its forms, and apparently with no small meed of success.

"No doubt exists as to the beneficial effects conferred by the marine treatment in the early stages of the disease."

In a paper following that of Dr. Wheeler, read on the same occasion, (British Homœopathic Congress), by Dr. Alfred Midgely Cash, upon the same subject, the following therapeutic suggestions are given:

Again, in a later attack of hæmoptysis, the ferr. acet. ix stopped the hæmorrhage in the course of one day, and several times afterwards, whenever it came on, ferr. acet. was given with the same good result.

I have much confidence in ferr. acet. I almost invariably find it acts rapidly in subduing the flow when of a bright red color, and calming the usual co-existing irritable cough. Millefolium ix I have also found useful, given as Hughes indicates, when the cough is not a striking feature, and when the blood is of a bright red color.

(7) In the case of a young man whom I treated for frequent severe hæmorrhages from the lungs, as much at one time as a pint of bright blood being brought up, I gave millefol. with a good result; after a course of it the tendency to bleeding appeared to diminish and the co-existing cough was quieted.

Ipecac. and hamamelis are indicated in darker colored hæmorrhages when the blood appears to have a venous origin and be of a more passive nature.

(8) I was called to E. C., a youth, aged 16, for hæmoptysis. He had raised blood four times, each time with a cough, and each time about 4 oz. blood was brought up. The blood was dark in color and the cough was considerable. There was flattening over the upper part of the right lung.

Ipecac ix was given every three hours. After three days no more blood; after ten days cough greatly lessened. In three weeks he was apparently well.

I must briefly refer to a few of the most frequently needed remedies:

Arsenicum iodide, brought into prominence years ago by Dr. H. Nankivell. It is perhaps the most generally useful, and alone, or in conjunction with phosphorus, generally effects improvement in the patient's state. In most of the foregoing cases referred to a more or less continuous course of this medicine was given. I have rarely found it disagrees, and if given shortly after food it seldom causes any pains in trunk or limbs, or any diarrhœa.

Phosphorus, also, is a great remedy where the well-known characteristics for its use exist. Besides its pulmonary action it comes in well where the larynx becomes affected by the tubercular disease, and with aconite is, at an early stage, of extreme value in diminishing the soreness and irritability, and mitigating the distressing cough and pain. There are few cases of phthisis in which phosphorus is not required at some time or other, often for long periods at once, and it is well borne as a rule, if not given in too strong a dilution. The 3x will do well for many cases, but too strong for others, where the 4x, 5x or 6x will be found to give equal help without causing any irritation.

I frequently give phosphorus and arsen. iod., together, putting phos. before arsen. iod. after meals, two or three times a day.

Tuberculinum has disappointed me somewhat. I have not seen the indubitable benefit from it in many cases which I had expected.

In laryngeal tuberculosis besides phos., kali bich., spongia, seleniate of soda and manganum have proved useful to me when treating the hoarseness and laryngeal pain and stridor met with when the vocal cords are attacked by tubercular inflammation, cedema and ulceration.

(9) In the case of a woman, aged 60, whom I attended with advanced tubercular laryngitis with almost complete aphonia, cough, copious expectoration, and—after food—a sense of burning in the chest, with eructations, carbo animalis 5x every three hours proved very useful, mitigating both the gastric and laryngeal distress. The cough will often call for special attention on account of its wearying and sleep-disturbing annoyance. Often it may only be the cry for fresh air from the increased nervous excitability of the air passage; hence worse at night and lessened by improved ventilation in the sleeping room. But some remedy may with advantage be given for it. When cough is worse on lying down hyoscyamus in the o or 1x is often helpful, and besides allaying the cough it has a sleep-inducing property of its own. A useful preparation I often have resource to is the dosimetric granule of Dr. Burggraave of one-fourth of a milligramme of hyoscyamine in strength, two granules taken through the evening every hour or two before bedtime may often be given with great advantage and will earn the thanks of the patient. Conium also is a useful remedy. Aconite in the first and second dilution will often quiet a cough depending on a congested state of the air passages. Bellad. and lachesis are also often called for. Drosera eases the violent, spasmodic cough which will, if not arrested, end in vomiting.

For the distressing perspirations to which tubercular patients are liable, often coming on in the early morning hours, phosphoric acid 1x in five-drop doses is indicated and may accomplish much improvement, and it has upon the system generally a markedly tonic, strengthening action. I have also found jaborandi in the 3x very useful, and also bellad. For exhausting colliquative sweats stannum comes in, and it is also indicated, as Hughes points out, in the copious sweetish, greenish expectoration of advanced phthisis. Here the iodide in various strengths has been recommended by Dr. Ord, and it comes in at a stage when remedies which really help are hard to find.

Marasmus and phthisis are stated to have been caused by tin, and if so, its present position in the opinion of our school is justified by its toxicological effects.

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

FIRST NATIONAL CONGRESS OF TUBERCULOSIS IN SARAGOSSA, SPAIN.—By a report made by Drs. Comet and Pinart, distinguished homœopathic practitioners of Barcelona, we are pleased to see the incorporation in their valuable work of the most efficacious measures adopted in the United States, but principally in Philadelphia, for the prevention and spread of *tuberculosis*. Among the many citations of this report, there are some concerning Philadelphia, and it is a source of pride to learn, that even in poor, but resolute Spain, the efforts of our Director of Public Health and other corporations, for the extirpation of the *White Plague* are highly appreciated and discussed.

In the United States, say the Spanish Doctors, public hygiene is becoming private, and not only the politic and professional press, but every citizen, daily discuss and with insistence, the subject of tuberculosis, and so we see that everyone, and we should endeavor to do the same, is acquainted with the hygienic laws and apply them with intelligence and equity.

The *conclusions* arrived at by Drs. Comet and Pinart are as follows:

In synthesis then, we may well say that the contagiousness of tuberculosis is undeniable.

That the chief channel of infection is the air-passages, without denying that the bacillus may enter through the digestive canal or penetrate the skin.

Tubercular heredity is not possible, but predisposition is acquired.

On the other hand, the infection is possible by sexual intercourse, and also by the anus, if an improper toilet is used.

Infection frequently takes place if children are allowed to introduce soiled toys or fingers in the mouth.

Hygiene is very much neglected in churches and other public places, and the result is propagation of the disease.

Air is the vehicle of the germs, and these are observed in lesser numbers in places with good ventilation and profuse sunlight.

One of the best preventive and curative means is an abundant nitrogenous diet.

Horse flesh is very wholesome and nutritive, and richer in nitrogen than beef or mutton.

Immunization of the affected by accredited methods should be encouraged.

Serotherapy gives no positive results.

Only tuberculins are beneficial, which can be divided in two classes:

1st. Inoculation of virulent or attenuated cultures, which are the tuberculins properly so called.

2nd. Inoculation of toxins, that are the soluble products elaborated by the microbes.

And these deductions close with the following assertions: "After a careful review of all the chiefly accepted *tuberculins*, we consider ours (*the homoeopathic*) the most useful. It belongs to the first class mentioned, is very attenuated with distilled water and alcohol, and is divided in three potencies.

"It does not determine any reaction, neither a hypothermia, such as most authorities wish.

"Opsonic investigations, agglutinations, and precipitins, confirm these results. Also plainly observed in the relief obtained in the patients.

"Those most easy to cure with our tuberculin are the scrofulous, or *ganglionar tuberculosis*."

"Then follows, in order of preference, the tuberculosis of the bones, and especially the articular variety (white swelling).

"Pulmonary and meningeal tuberculosis, however, are the most difficult, but if the lesions are not far advanced, they get better and some even cured."—*Saragossa*, Oct. 4th, 1908.

THE LAW OF SIMILITUDE IN ALLOPATHY.—In the *Journal des Praticiens* of March last, No. 12, I found an interesting article from the prolific pen of our Jousset, of Paris, whose literal translation reads as follows:

"For the first time, in 1892, Dr. Lancereaux communicated to *l'Academie de Medecine de Paris*, his observations on cases of *epithelial nephritis* cured by the small doses of the *Tincture of Cantharides*. This communication, which led to a suspicion of heresy on the part of the Doctor, was naturally received with the utmost bad feeling by the savants, who were afraid in these clinical facts the demonstration of the *Law of Similaris*.

"It seems as if the failure of his first report was not sufficient for Dr. Lancereaux to give up his excursions into a therapeutics so displeasing to the official savants. But, and I say it in honor of the human spirit, truth possesses an attraction to which finally all the most tenacious prejudices must yield.

"Dr. Lancereaux has seen the *epithelial nephritis* cured, he has reported the fact and, after 15 years of silence, he repeats his communication and announces the Academy again that *Cantharidis* cures nephritis, *but only epithelial nephritis*. We have given," says this Doctor again, "the *tincture of cantharids*, whose action on the epithelium, in general, and on the kidneys, in particular, we so well know, because, in epithelial nephritis, the epithelial cell is the histological element particularly affected.

"The histological works of these last years demonstrate the well-founded assertions of Dr. Lancereaux about the production of experimental epithelial nephritis by *Cantharidis*. We can but conclude that the curative action of *Cantharidis*, in *epithelial nephritis*, is a new demonstraton of the Law of Similaris, as it places in evidence the cure of an affection by a remedy which has the power to produce it in the healthy man.

"A similar conclusion would have produced a true scandal. Dr. Lancereaux therefore has justified the indication of *Cantharidis* in epithelial nephritis by the identity of the seat of the lesion in both cases, what allows hm to say that the indication is derived from pathological anatomy."

But, no, the indication is not taken out only from the seat of the lesion,

but from the very characters of the lesion, which are analogous in the two cases. It is nothing but the *Law of Similars* that governs here the therapeutic process.—*P. Jousset*.

IMAGINATION.—An English physician was for some time taking care of a man affected with *paralysis of the tongue*, who had tried every treatment without success. The physician was anxious to employ in this case an instrument of his invention from which he expected excellent results. Before proceeding to the operation, he introduced in the mouth of his patient a clinical thermometer, who taking the thermometer for the instrument at the end of a few minutes exclaimed full of joy that he could move his tongue at will and was cured.—*Sobernheim Gesundheitslehre*, 1835.

NOTE:—A good example of these brilliant cures obtained by our dreamers with a single drop of *Causticum*.—*C. M. M.*

FORCE OF MIND.—Every thoughtful physician knows the real illuminating value of letting a patient describe his symptoms in his own language, however quaint; and how he learns thereby more of the "inner working of the disease than by the most cunning phrases which he puts into the patient's mouth."—*Schofield*.

NOTE:—Homœopaths have been doing this for a hundred years.

CINEMATOPHTALMIAS.—It is admitted to-day, especially in France, that the successive visual excitations of the *cinematograph* produce a notable fatigue of the retina. These varieties of *ophthalmia* may assume various forms:

1st. Some of them are essentially temporal and fugitive. They consist of lachrimation and a photophobia which compels the spectator to close the eyes. Their onset coincides with the passage of the first images on the screen. Very frequently a few seconds of rest by closing the eyes is sufficient to arrest these ocular troubles. The individual so affected seems to become accustomed, adopting the retina to the new work demanded.

2nd. Other cases are more durable. The retinal adaptation is impossible. The act of opening the eyes brings on a return of the trouble and the patient must renounce the show. On leaving the exhibition a slight lachrimation persists and there is some redness of the conjunctiva. In the majority of cases reaction takes place and all ends well.

3rd. Occasionally, however, the changes are prolonged. During two, three or four days—rarely more—the affected individual presents a true cinesic conjunctivitis, usually without agglutination of the lids, but with marked conjunctival injection, smarting, itching, lachrimation, and photophobia.

Sometimes, we have even accentuated ocular troubles, characterized by symptoms of real visual fatigue, retinal asthenopia and accommodative asthenopia. Two or three days after the show the patient is unable to read, to write, etc. Dr. Ginestons, of Bordeaux, reports a case of a young lady, 18 years old, and a great admirer of *moving pictures*, notwithstanding the conjunctival troubles to which she is liable every time she attends the show, who for some days after this exposure can not read or sew but

with an extreme fatigue. Another patient is obliged, likewise, to abandon for days, reading of the journals, after the visits to these exhibitions.

Fortunately, in all these cases the visual acuteness has remained normal, no vice of refraction has been noticed, and the ophthalmoscope does not reveal any lesion of the fundus.—*Gaz. hebdomadaire de Bordeaux*, 1909.

NOTE:—I have two patients who suffer from *moving pictures*; one has given up these shows on account of hammering headache; the other has had time to get home after the show on account of vertigo.

SMALL DOSES OF HOMŒOPATHY.—The grinding up or dissolving of a medicinal substance subdivides it, and the finely divided particles are brought into contact with living cells which act the part of liberators of the latent intra-atomic energy. Such a liberation of energy goes on everywhere, under all circumstances. How much more favorably when subdivision renders possible ionization by the tissues. As regards the preparation of homœopathic medicines by trituration and solution, it is not contended that the drugs are ionized, but that their minute subdivision renders them capable of ionization by the tissue. Nor is it necessary to suppose that before administration drugs are ionized. Our knowledge of cellular physiology and cellular pathology demands a cellular therapeutics, and in this domain bulk gives place to speed. Herein lies the scientific justification of the clinical use (long verified by experience) of minute doses of finely subdivided substances. Thus spoke Dr. Edwin A. Neatley, in his presidential address to the British Homœopathic Congress. It is a clever adaptation of the ionic hypothesis to the Hahnemannian doctrine.—*Chemist and Druggist*.

THE EVOLUTION OF MATTER.—The doctrine of the intra-atomic energy of matter is explained by Le Bon, as follows:

1. Matter supposed formerly indestructible slowly evanesces by the continual dissociation of its component atoms.
2. The products of the dematerialisation of atoms, constitute, by their properties between the ponderable bodies and the imponderable ether, intermediary substances; that is to say between two worlds deeply separated by science till now.
3. Matter considered heretofore inert and unable to restore but the energy furnished to it at first, is, on the contrary, a vast storehouse of energy—*intra-atomic energy*—which it can consume without need of borrowing any outside.
4. It is from the *intra-atomic energy* that manifests itself during the dissociation of matter, that the greater number of forces of the universe are developed; electricity and solar heat particularly.
5. Force and matter are two diverse forms of the same thing. Matter represents a stable form of *intra-atomic energy*. Heat, light, electricity, &c., represent instable forms of the same energy.
6. By the dissociation of atoms, that is to say, by dematerialising matter, we only transform the stable form of energy called matter into those instable forms known under the name of electricity, light, heat, &c.
7. The law of evolution applicable to living beings, is likewise applicable to simple bodies; neither chemical species nor the living ones are invariable.—*Bibliothèque de Philosophie Scientifique*.

THE HAHNEMANNIAN MONTHLY.

OCTOBER, 1909.

A REVIEW OF RECENT PROGRESS IN THE PRINCIPLES AND PRACTICE OF OBSTETRICS.

BY

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(Address of the Chairman of the Bureau of Obstetrics, Homœopathic Medical Society of the State of Pennsylvania, September, 1909).

I AM duly sensible of the honor conferred in my appointment to the chairmanship of this important section, and hope with the co-operation of the members present, to make the occasion one of interest and no little profit to all. To this end I would bespeak your careful consideration of the papers presented by the associate members of this section, who have devoted time and thought and research work to certain particular phases of the subject and give promise in their individual lines to advance the frontiers of our knowledge of this noble art.

Specialists may come and go; the general practitioner, once the noblest ornament of the profession, may go for good, but the obstetrician will survive so long as the curse of Eve entails upon womankind the pangs of childbirth and its attendant dangers. Just so long, then, will she appeal to our best skill and look to us for comfort, sympathy and aid in this trying hour.

I, therefore, hold that Hahnemann's dictum here applies with special emphasis—"that in an art, the end of which is the saving of human life, any failure to make ourselves master of it is a crime." For in no department of medicine are there greater opportunities for the exercise of skill and correct judg-

ment, than where nature fails in her efforts to properly deliver the parturient woman, and in no case is the exercise of faulty judgment more fraught with evil consequences—consequences which have to do not only with one life, but with two or more.

It is not necessary to review here the mistakes of the past. Men were groping through the long ages toward the light, and in their progress hit upon one principle after another, which with their imperfect methods, they were able to apply but crudely. Instruments were used to facilitate labor, which have since reached a high degree of perfection in our improved forms of obstetrical forceps. Attempts were made to deliver a living child by the abdominal incision, which meant a sacrifice of the life of the mother. Implements were used to crush and destroy the foetus, again sacrificing in almost every instance the mother's life, but by the more prolonged and painful process of puerperal septicæmia. Gradually these implements and procedures were perfected, and then came the epoch-making discovery of the contagiousness of puerperal septicæmia. Most distressing and appalling are the records of suffering and death which have come down to us from this period, and almost incredible in the light of our present knowledge. All those who have not read the essay of Oliver Wendell Holmes on "The Contagiousness of Puerperal Fever," with annotations on the great controversy of that time, should do so at their earliest opportunity. Accoucheurs were compelled, with shame and sorrow, to report death after death of young and promising mothers from this dread malady. All unmindful of the awful consequences of their acts, physicians would attend these cases to the death, perform autopsies upon the unfortunate victims, and then without change of garment or more than an ordinary washing of the hands, proceed to the bedside of those who in this important hour were entrusting to them their lives and future happiness. The consequences may readily be imagined, and for those who may not recall the history of this stirring time, it may be of interest to quote from one of the reports of cases treated; and it should be remembered that it was the common experience prior to this great awakening.

It was said of old Sairy Gamp, the much-quoted, that she went to a "Lying In" or a "Laying Out" with equal zest. Nor was she alone in this. Dr. Warrington reported at a meeting of the College of Physicians of Philadelphia, that a few days after assisting at an autopsy of puerperal peritonitis, in which

he ladled out the contents of the abdominal cavity with his hands, he was called upon to deliver three women in rapid succession. All of these women were attacked with different forms of what is commonly called "puerperal fever." Soon after these he saw two other patients, both on the same day, with the same disease. Of these five patients, three died. It is little less than a miracle that all did not die.

At the same meeting Dr. West mentioned a fact related to him by Dr. Samuel Jackson, of Northumberland county. Seven females delivered by Dr. Jackson in rapid succession, while practicing in Northumberland, were all attacked with puerperal fever, and five of them died. "Women," he said, "who expected me to attend upon them, now becoming alarmed, moved out of my reach, and others sent for a physician residing several miles away." These women, as well as those attended by mid-wives, all did well. He underwent, as he thought, a thorough purification, and still his next patient was attacked by the disease and died. He was led to suspect that the contagion might have been carried in the gloves which he had worn in attending upon the previous cases. Gloves were evidently scarce at that time. Two months or more after this, he had two other cases. He could find nothing to account for these, unless it was the instruments for giving enemata in two of the former cases and were employed by these patients. When the first case occurred he was attending and dressing a limb extensively mortified by erysipelas, and went immediately to the accouchement with his clothes and gloves most thoroughly imbued with its effluvia. Then follow dreary accounts of nurses who laid out these bodies and who soon fell sick or carried the disease to women whom they attended in confinement.

Then the scene changes to England and Scotland. Scarcely credible is the account of Dr. Campbell, of Edinburgh, who states that in October, 1821, he assisted at the post mortem of a patient who died with puerperal fever. He carried the pelvic viscera in his pocket to the class room. The same evening he attended a woman in labor without previously changing his clothes. This patient died. The next morning he delivered a patient with the forceps. She also died, and of many others who were seized with the disease within a few weeks, three shared the same fate in succession. In June, 1823, he assisted some of his pupils at the autopsy of a case of puerperal fever. He was unable to wash his hands with proper care, for the

want of the necessary accommodations. Upon arriving home he found that two patients required his assistance. He went without further ablutions or changing his clothes. Both these patients died with puerperal fever. This same man, comments Dr. Holmes, is an authority on the non-contagiousness of puerperal septicæmia.

These few instances, all occurring in the early part of the last century, are given as a side light on the practice of the times and as showing the blindness of the men of the day to what would seem to be palpable truths. As Holmes again comments: "It never appeared to them as a singular coincidence that one man or woman should have ten, twenty, thirty or even *seventy* cases of this disease following his or her footsteps with the keenness of a beagle through the streets and lanes of a crowded city, while the scores that cross the same paths on the same errands knew it by name only."

"Now add to this," says Holmes, "the fact that within the walls of lying-in hospitals there is often generated a miasm, palpable as the chlorine used to destroy it, tenacious so as in some cases almost to defy extirpation, deadly in the same institutions as the plague; which has killed women in a private hospital of London so fast that they were buried two in a coffin to conceal its horrors; which enabled Tonnelle to record 222 autopsies at the Maternité of Paris at one time; which has led Dr. Lee to express his deliberate conviction that "the loss of life occasioned by these institutions, completely defeats the objects of their founders"; and finally, "the multiplied groups of cases clustering about individuals, the deadly results of autopsies, the inoculation by fluids from the living patient, the murderous poison of the hospital, all form a tremendous indictment against the practices of the times and a source of wonder that they should have been permitted to go on so long." However, there were not wanting strong words of protest, as those of Dr. Blundell, who said, "that in my own family I had rather that those I esteemed the most, should be delivered unaided in a stable, by the manger side, than that they should receive the best help in the fairest apartment, but exposed to the vapors of this pitiless disease"; a sentiment which in its beauty and pathos, rises to a sublime height and applies with equal force to-day, where the possibilities of its occurrence have been reduced to a minimum. However, this is reminiscent and it is only the purpose of the present paper to offer a brief

summary of work done in obstetrical practice during the year past; with whatever comments may suggest themselves; leaving to your judgment the decision as to what is best. This will apply mainly to operative or mechanical procedures, of which many have been devised or improved upon within the past two or three years. Of these, some have stood the test of time, while others have been weighed in the balance and found wanting.

So far as the medical treatment is concerned, we still have our old and tried remedies, which I believe cannot be excelled in efficiency by any other system, and which being based upon an unalterable law, are the same yesterday, to-day and forever.

It only remains for us to enlarge our knowledge of the workings of that law in the application of the proper remedy. It is proposed to consider a few of the dystocias, whether caused by a deformed parturient canal, malpositions of the foetus, placenta previa, eclampsia, extra uterine pregnancy, or the obstructing presence of tumors. We hope to offer the last word on the applicability in these cases of high forceps operations, version, correction of malpositions, symphysiotomy, pubiotomy, craniotomy or Cæsarian section. Of course, it is realized that a consideration of each of these conditions is a vast subject in itself, and that doctors differ widely in their theories, as well as their modes of treatment. It only remains for us to follow the old injunction, "Try all things, prove all things, hold fast that which is good," not forgetting that in many cases with seemingly insuperable difficulties, the exercise of patience and a little intelligent co-operation with nature, will clear the way and make unnecessary a resort to harsher or more radical measures. This may account for the success of practitioners who, far removed from the great centers of advanced knowledge, have attended their thousands of cases with but little mortality and but infrequent resort to any of the major operations of obstetrics. Hence, it will be readily understood that judgment of a high order is necessary to the well qualified obstetrician, in addition to an adequate degree of skill in the performance of all necessary operations. Here, as elsewhere, common sense, which has been called "uncommon sense," is a saving grace. A distinguished physician once said: "A physician of common sense without erudition, is better than a learned one without common sense, but the thorough master of his profession must have learning added to his na-

tural gifts." And so "the old woman who knows how to make a poultice and how to put it on and does it just when and where it is needed, is better than a staring pathologist who stares and thumps and guesses, and then goes home to tumble his books over and make out a diagnosis."

I incline to the belief that the current of thought, this past year has set in too strongly in favor of operative procedures, as against conservative methods. So greatly is this in evidence that it is becoming a matter of common knowledge and comment, not only within the profession itself, but among the general public. Note the frequent squibs in the public prints. Every day we see something like the following:

First Physician.—"The profession has made great advances of late years."

Second Physician.—"Very true. Why, I can remember the time when a doctor would not think of operating when it was not necessary."

Let us guard against being carried away by every tide that sets in in our direction, but rather cling to that which is safe and sane. Happily, craniotomy and such destructive operations may now be considered things of the past.

I believe it to be the best practice in any ordinary case of dystocia from reduced diameters, to wait and give the forces of nature every chance, assisting by changing malpositions to advantageous ones, with the careful and persistent application of the forceps. I have seen many such cases delivered of living children after prolonged labors, when assistance had been sent for and preparations made for one of the major operations. However, valuable time should not be lost in fruitless efforts along these lines, and the operation of choice should be performed in ample time to save the life not only of the mother, but also that of the child.

As a means of enlarging the diameters and so facilitating or making possible the passage of the foetus, the operation of symphysiotomy first came into use. It accomplishes this object, but has its disadvantages in delaying convalescence or permanently disabling the woman by a non-union of the divided portion of the os pubis; it also weakens the supports of the bladder. Severe hemorrhage is liable to occur; also injury to the urethra, or a resultant septicæmia.

Pubiotomy next came into vogue and seems to offer fewer objections and greater immunity from the above mishaps.

With certain limitations, noted later, these operations are supposed to take the place of the high forceps application, which is admitted to involve at times most serious consequences to mother, or child, or both; also to supersede the operation of Cæsarian section. This would be gratifying indeed, for while the mortality of the latter has been reduced to a minimum, the after conditions are frequently a source of considerable annoyance. These methods, *i. e.*, symphysiotomy and pubiotomy, have their adherents in great numbers, and there are also those who claim these operations to be unjustifiable in any case. So far as my own experience goes, I will say that although in the active practice of this branch for more than twenty-five years, and in that time no doubt attending the usual number of cases, I have never found one in which either operation was absolutely necessary. Among the number I could enumerate many cases of prolonged and difficult labors from various causes, but none in which delivery could not be, or was not effected by patient effort in correcting malpositions and the application of forceps, or both. In no case was there loss of life, except one from placenta previa, complicated by a severe fall, precipitating labor at the eighth month. I saw this case only at the last moment, when the patient was *in extremis*. Here the mother and child both died.

In one case the child was delivered by high forceps operation, after a prolonged and difficult labor. The child was moribund and died in a few minutes. This was the nearest call for a pubiotomy, but it occurred fifteen years ago.

In the following year I delivered this same mother, also by a tedious high forceps experience, of a living child, both mother and child remaining subsequently in the best of health. One child died as a result of a delayed after-coming head in a breech presentation. In this case I was called too late to perform a version or give other needed assistance:

One more item is to be added to the mortality list; in a case of rupture of the uterus in the lower segment, where the diagnosis was at first difficult, and where death ensued after a severe hemorrhage which did not afford time to perform a Porro.

This experience, with its freedom from operations of a capital nature, was, of course, merely a matter of good fortune. Had there been a case of sufficiently deformed pelvis or with the obstructing presence of tumors, the indicated operation would have obviously been necessary.

However, there have been a sufficient number of cases to prove that conservatism is of great value in carrying difficult cases through to a successful conclusion. As regards pubiotomy in comparison with other methods, Dr. Charles B. Reed, Chicago, Illinois, in a paper on pubiotomy read before the Chicago Gynecological Society, March 11, 1909, says that pelvic contraction to a serious degree occurs in one out of every twenty of these cases. "Furthermore," he adds, "in this five per cent. of all cases, it is recognized that the generally contracted and the flat pelvis occur with the greatest frequency, constituting not less than 75 per cent. of the bony obstacles that may complicate labor. While not limited entirely to this field, yet the operation of pubiotomy is most useful in these cases of pelvic contraction."

Pubiotomy as an additional resource in these cases has been deemed necessary because, in Dr. Reed's words, "The mortality for the child in cases of generally contracted flat pelvis where labor terminates without interference, is given by Von Winckel at 20 per cent., or one in five. In labors artificially terminated we find a mortality for the child from version and extraction of from 35 to 60 per cent. From forceps 35 to 60 per cent. From premature labor, 30 per cent or more of the children die during the delivery or shortly thereafter. . . . What is the aim of the operation (pubiotomy) or having done the operation what is thereby accomplished? Primarily, with a separation of 3 cm. between the ends of the bones there is an enlargement of the pelvis in all its diameters of about 1 cm. This will permit the woman to deliver herself of her babe in most instances without further interference, but if interference is required, it may be undertaken in what is now a fine roomy pelvis through which either forceps or version is likely to bring a living child. Lichtenstein reports a series of 154 cases of version and extraction in which 110 were done before pubiotomy with a mortality of 32.82 per cent., while 44 done after pubiotomy gave a mortality of only 13.64 per cent."

By the operation of pubiotomy, Dr. Reed claims the cases of difficult version and extraction, and difficult forceps will be reduced to a minimum, or if done will be done under the most favorable conditions. The percentages of contracted pelvis above quoted, are probably too high, higher than given by most authorities. Also, the mortality lists take no account of the cases of chronic invalidism.

Dr. Richard C. Norris, Philadelphia, Pa., in a paper on "The Management of Labor Obstructed by Pelvic Disproportion," read before the Pittsburgh Academy of Medicine, March 9, 1909, argued in favor of inducing labor after the eighth month of pregnancy and as late as the studied relative disproportion (between head and pelvis) will permit, in order to help those cases that without this aid would after test labor at term, require either a major operation, such as Cæsarian section or pubiotomy, with their increased maternal mortality in virtue of the test labor, or a very hard high forceps delivery with its large infant mortality.

In 3,000 consecutive labor cases at the "Preston Retreat," he says: "I have not once performed Cæsarian section, and labor has been induced in every case of moderate disproportion entering the hospital before term. There has been no maternal mortality in these labors, and the infant mortality was 10 per cent. The infant mortality in unobstructed cases has been about 7 per cent."

Dr. Harold A. Miller makes a strong plea for the inducement of premature labor in cases of moderate disproportion, in a paper on "Operative Procedures for the Relief of Dystocia," read before the Pittsburgh Academy of Medicine, March 9, 1909. He says: "In the general practice of obstetrics as it exists to-day, the most popular therapy of narrow pelvis is the induction of labor after the foetus is viable, but still small enough to pass the narrowed or obstructed birth canal, the application of axis traction forceps or version and the extraction of the child. In the statistics which I have tabulated regarding the induction of premature labor, in all having collected some 1,500 cases, I find that the maternal mortality is 14-10 per cent., while in pubiotomy the collected cases have given a maternal mortality of 28-10 per cent.; in Cæsarian section, in the last five years the statistics which I have been able to review would indicate a maternal mortality of about 63-10 per cent." This experience is worth considering.

Dr. Hudson D. Bishop, of the Cleveland Homœopathic Medical College, lays special emphasis on the importance of ante-partum measurements of the pelvic diameters. This is particularly necessary in the general practitioner, who, as Dr. Bishop says, "does by far the greater portion of the obstetric work." Dr. Bishop presents in a clear and forcible manner the indications for Cæsarian section, symphysiotomy or pubiotomy

in contracted pelvis; of the latter two giving the preference to pubiotomy.

His summary is as follows:

"1. Choose Cæsarian section in all cases of absolute pelvic contraction (a true conjugate 7.5 cm. in generally contracted and 7 cm. in flat pelvis) and in the cases slightly above these measurements, unless the head is small.

"2. Choose spontaneous labor in all other cases, and if after a fair test of labor, engagement does not take place, use high forceps (axis-traction) widening the pelvis by pubiotomy, if delivery cannot be made easily with forceps."

Pubiotomy is believed by many to be a better operation than Cæsarian section in all of the cases of contraction, when an enlargement of the brim within the limits of the operation will permit of the passage of the head. Instead of separating the pelvic girdle at the symphysis, as in symphysiotomy, the pubic bone, near the symphysis is severed with a saw, on the side toward which the occiput points. The chief indication for pubiotomy is a mechanical obstruction from pelvic contraction that will disappear after an enlargement of the brim within the safe limits of the operation, *i. e.*, not more than five or six cm. The effect of widening the pelvis by separating the pelvic girdle at or near the symphysis, is to add about two mm. to the true conjugate for each cm. of separation.

Dr. Bishop believes that it will come into more general use, especially as it does not require any extraordinary degree of skill, and that it will be used in many high forceps cases, where there is danger of foetal mortality. There are many drawbacks to this operation, such as: non-union, more or less permanent weakening of the pelvic structure, hemorrhage and injury to the soft parts; but these do not outweigh its large field of usefulness.

Among the few advocates of symphysiotomy, as against pubiotomy, is Dr. T. Mitchell Burns, of Denver, Colorado, who, in the September number of the *Journal of Surgery, Gynaecology and Obstetrics*, says: "Ever since symphysiotomy was brought before the world by Pinald and Harris, I have been a firm believer in its value in elective cases. Ever since pubiotomy came into vogue, I have been awaiting its downfall. To-day symphysiotomy is almost of the past and pubiotomy is waning, but I still have my old ideas about symphysiotomy." The doctor then describes an improved technique by which the

urethra and bladder wall are drawn back by means of a hard rubber sound. In the case quoted the mother made a good recovery, but the child died almost immediately after birth.

These operations are not, of course, intended to compete with Cæsarian section, which is the operation of choice where a living child cannot be delivered by any other means. Most authorities also agree that since this operation is attended by such a low mortality, even in second and third cases, a sterilization of the woman is not justified, except in the presence of diseased conditions.

Much has been said of the operative treatment of placenta previa. Dr. H. A. Miller, (*Amer. Jour. of Surg.*, Jan. 1909,) reported eleven cases operated on by him for the control of hemorrhage associated with placenta previa, by ligation of the uterine artery through the vagina. Of these cases he lost two by delivering without waiting until shock had been combated. "This operation," he says, "can be done without anesthesia, does not injure the organs of generation, cuts off the blood supply to the placenta, and removes the necessity for haste in dilating the os." The operator will perhaps look with doubt upon this expedient.

At the thirty-fourth annual meeting of the Amer. Gyn. Soc. held in April, 1909, at New York, the consensus of opinion was unfavorable to resort to Cæsarian section in placenta previa.

Dr. H. D. Fry, of Washington, D. C., said: "The recent obstetric text-books by Williams, Jewett, Peterson, Edgar, Webster, Hirst, written by men who have had large experience in Cæsarian section, as well as in the obstetric treatment of placenta previa, condemn the operation except in a small percentage of cases."

He held that the conditions indicating abdominal Cæsarian section will occur in about five per cent. of all cases of placenta previa. These conditions include primiparity, a small vagina, a rigid and undilatable cervix, and placenta previa centralis.

Dr. Fry significantly added: "The frequency with which one meets with a rigid and undilatable cervix complicating placenta previa depends, to a great extent, upon the obstetric experience of the individual operator."

Again Dr. Fry said: "Any preliminary treatment, except possibly the careful aseptic packing of the vagina to control hemorrhage until preparations can be made to operate, removes the case from the classical Cæsarian indications. Tamponade

of the vagina done hurriedly and without strict aseptic technic, as in emergency work outside a hospital, carries with it the danger of infection. The Porro operation then offers the best chance to save the mother. Invasion of the cervical canal, whether by gauze tamponade, hydrostatic dilators, effort at instrumental or manual dilatation, remove the case from the classical Cæsarian to the Porro operation. In every case without every facility for the work, Cæsarian section for placenta previa should be eliminated and obstetric methods employed."

My own experience with placenta previa has been satisfactory in all cases seen sufficiently early. The treatment has consisted mainly in a careful packing of the vagina, persisted in, until sufficient softening and dilatation was obtained to remove a centrally implanted placenta with the hand and apply the forceps. In these there was no mortality to mother or child. Special attention was given to sustaining the vitality of the mother during the exhausting process, and much benefit was obtained by the administration of china during and especially after delivery.

In extra-uterine pregnancy, results have been most excellent by a careful system of antisepsis and an improved technique. As to indications and mode of operation, Dr. Deaver says in a recent paper on this subject:

"I am willing to grant that a patient should not have a 'pen-knife' operation done on her before she has recovered from her first faint. There is reason in all things. It is equally true that a patient in *articulo mortis* should not be subjected to operation. . . . My position then is this: A continuance of the collapsed condition, commonly, and as I believe, erroneously, termed shock, for a longer time than one hour, indicates that a considerable hemorrhage has occurred and may be continuing. The surgical indications are clear—stop the bleeding; stimulate. Since 1900 I have had 110 cases of extra-uterine pregnancy, many of them of the acute type, without a death.

"My procedure in these urgent cases is as follows: If the condition be very low, stimulation is begun on admission by hypodermoclysis and strychnia. If there is extreme restlessness, morphia is a valuable adjunct. They are placed on the table with as little disturbance as possible, and a light, quick etherization given. Preparation is rapidly completed, and intravenous transfusion of normal saline solution started as the ab-

dominal incision is made. 'Get in quickly, get out quickly,' applies here as forcibly as anywhere in surgery. The offending tube and ovary are removed. The clots are scooped out, and if the condition of the patient warrants, the abdomen is flushed out and filled with normal saline solution. . . . I wish to call attention to the value, or rather the necessity of filling the empty blood vessels with saline in these depleted cases."

In reporting an extreme case, successfully operated on, Dr. Deaver mentions the amount of saline used, viz., by hypodermoclysis at the beginning, 1000 c.c.; intravenous transfusion during the operation, 2000 c.c.; left in the abdomen at least 1500 c.c. Then in the twelve hours after operation her thirsty vessels absorbed by way of the large bowel, 4000 c.c. additional. Nearly nine liters of saline, over two gallons of fluid to meet the mechanical needs of the circulation.

For a serious condition, it is wonderful with what generally uniform success it has been treated.

In such troublesome conditions as hour glass contraction during labor, Dr. Elmer Sothron, of Washington, D. C., finds (*Amer. Jour. of Obstetrics*, September, 1909,) that meddling midwifery has undoubtedly a great deal to do in bringing about this condition; such as the early rupture of the amniotic sac, the abuse of ergot and other drugs, and the too hasty attempt to deliver the placenta by traction on the cord. The following are his conclusions:

"1. Avoid meddling midwifery, such as early rupture of the amniotic sac before it has thoroughly performed its function as a dilator or extender.

"2. Avoid the use of ergot or other drugs of similar action until the completion of the third stage of labor.

"3. Avoid interference with normal uterine action by the prolonged use of chloroform or ether.

"4. Avoid the danger of stimulating spasmodic uterine contraction as well as danger of rupture of the cord by an attempt to deliver an adherent placenta by traction on the cord."

Undoubtedly, good advice.

In the treatment of eclampsia, hygienic, adjuvant and dietetic measures should be directed toward early elimination of the poison. But in this disease, homœopathy has won great laurels, and principally by the administration of such remedies as kali chlor. and cupr. ars., as preventatives of the attack. When properly prescribed, they act with almost unerring certainty.

As regards our armamentarium in the treatment of the vomiting of pregnancy, a great and notable addition has recently been made through the painstaking and successful researches of Drs. Blodgett and Starbuck of the Homœopathic Hospital of Boston. They found that a certain class of cases of vomiting of pregnancy were invariably associated with the presence of acetone and diacetic acid in the urine. Also that these cases were uniformly of a severe type—pernicious or malignant vomiting, that form which requires the induction of labor to save the life of the mother. Also that it most generally occurs, with the indication for the remedy, in the later months of pregnancy. The remedy is bicarbonate of soda in a certain definite dosage; namely, 30 grains dissolved in a glass of water, 1 teaspoonful every quarter hour, so as to complete the total of 30 grains in a day. In ordinary cases, not associated with the presence of these bodies, the remedy was inert. But it is in these that the homœopathically indicated remedies are sufficiently effective. Drs. Harold Wynne Thomas and George Burford report cases in which, to use their own expression, the effect was “dramatic.” It is also claimed the remedy is of equal efficacy whether used in the early or later months of pregnancy, where the condition co-exists with acetonuria.

I cannot close this paper without, in the first place, making a strong plea for the more careful study of our materia medica as it relates to all conditions associated with the ills of pregnancy. It will be found to richly repay us for the effort. And finally, I wish to enter a protest against what might be called an over-zealous or exaggerated technique in the management of labor. The tendency is to surround the patient, even in the ordinary, uncomplicated case, with an elaborate array of instruments, even going so far as to place the patient on an operating table. All this, with a complicated system of asepsis, tends to fill the mind of the prospective mother with feelings of apprehension and alarm, and serves no good purpose. On the contrary, it adds to the discomforts of her condition and retards convalescence. To put it mildly, it is the silliest performance imaginable, and unworthy the true disciples of the healing art. Nor is that all. The excessive scrubbing inside and out, with the irritating solutions applied, have the effect of denuding the surfaces and greatly lowering the natural powers of resistance. This renders the subject more liable to absorb, or be inoculated with certain septic elements which must

unavoidably come in contact with the surfaces deprived of their natural protection. Let us have done with this folly and devote our energies to the higher development of an art which deserves our utmost devotion.

THE APPLICATION OF HOMŒOPATHIC REMEDIES IN OBSTETRICAL PRACTICE.

BY

C. S. MIDDLETON, M. D., PHILADELPHIA.

(Read before the Homœopathic Medical Society of the State of Pennsylvania, held at Scranton, Pa., Sept. 21-23, 1909).

THE object of this paper is not to be exhaustive but to boldly claim that in some conditions accompanying pregnancy, and in others appearing in parturition, the use of correctly applied homœopathic remedies has often brought relief to the patient, to be obtained by no other means, smoothed her pathway, and made her burden less hard to bear.

To one who has treated a large number of cases in this branch of medicine in his experience of nearly forty-eight years of practice, and who has an abiding faith in homœopathy, which faith, it may be said, has grown stronger with the lapse of time, and who, as a member of the Homœopathic Board of Medical Examiners from its organization, has had an abundant opportunity of passing judgment on this subject, having been examiner on obstetrics for years, the fact has been forced upon him, that, for some reason, homœopathy does not now receive just appreciation of its worth in this practice, too much attention apparently being given to materialism alone.

Notwithstanding it was the invariable custom to announce to the class, that wherever treatment was asked for, homœopathic treatment was especially to be given, no matter what other adjuvants were advised, it required a very cursory observation alone, to note the paucity of attention given to homœopathic prescriptions, even where the indications for such remedies were clearly in evidence.

With this, to me deplorable fact in mind—and my opinion being fortified by contact with some younger practitioners of the past few years—must suffice as an apology, if apology be needed, for the appearance of this paper. Let it be understood

that the writer does not decry the application of any and all adjuvants, surgical or otherwise, when needed, but he pleads for homœopathic remedies in all cases where medicinal treatment is required.

In comparison with the practice of the dominant school in this branch of medicine, where most of the various derangements of pregnancy are attributed to auto-toxæmia of some kind or nature, and where the treatment for relief is decided upon through these theoretical grounds—either merely analgesic, sedative, purgative, antacid, or germ destroying means are employed, it seems to those who have had the opportunity of demonstrating the superiority of the homœopathic therapy in the subject under consideration—to fall very far short of rendering the service required, which homœopaths have demonstrated in pregnancy, and no less during the process of labor have homœopathic remedies rendered brilliant service, saving much time, suffering and perhaps death, of the infant or mother.

In obstetrical practice the trouble begins, if at all, at the onset of pregnancy, with vomiting; and for this condition, aside from dietetic and hygienic suggestions, ipecac will usually be found of service and often correct the abnormality, when there is continual nausea; vomiting of all contents of the stomach, undigested and in large quantities; mucous and bilious material; tongue coated whitish; desire for certain foods and sweets; or disgust for all foods; sometimes diarrhœa of mucous and greenish substances, some colic and straining, stomach relaxed; breath offensive; sleepy after vomiting; symptoms worse from stooping.

Nux vom.: nausea and vomiting; worse in the morning; belching; bitter and sour taste; eructations; water-brash; weight and heaviness at pit of stomach; constipation; hemorrhoids; nervousness; irritability; depression; tobacco and other odors offensive; restless sleep, particularly after three A. M.; desire for stimulants but worse for indulgence in alcoholic liquors.

Arsenic alb.: as arsenic acts upon almost every organ, tissue and secretion of the system, producing great prostration and exhaustion of the vital forces, long lasting in its action, it becomes a grand remedy for so-called pernicious vomiting of pregnancy, which in some instances may be due to auto-toxæmia. The tongue may be furred on the sides, with red streaks

down centre, or may be very red all over and dry, with great thirst, wanting to drink cold water very often but satisfied with but little at a time.

Vomiting is excited by eating or drinking; vomiting caused by eating fruits or ice cream; great distress in epigastric region; intense burning in stomach and abdomen; loathing of all foods; great emaciation; skin dry; face pale, death-like, sunken; great mental anxiety; dread of death; restless, worse after midnight (1 to 3 A. M.); diarrhœa, thin, watery, yellowish, very offensive or blackish stools, greenish and mucous.

Phosphorus: being also a remedy of destructive action, may be of vast use in pernicious vomiting, where the blood seems to have undergone degeneration (toxæmia). Sometimes there may be ravenous hunger, or loss of appetite; thirst; water is vomited as soon as it becomes warm in the stomach; food regurgitates, sometimes in mouthfuls; longing for acids and refreshing drinks and foods; vomiting of blood, bile and mucus; pain in the stomach; pain in, and rapid decay of teeth, and perhaps of the maxilla.

Fer. phos.: a good recuperator. Vomiting of undigested food; suddenly leaves the table, and with one effort vomits the food, then can sit down and eat again; vomiting of bright red blood.

Pulsatilla: we must regard pulsatilla as one of the most useful remedies in pregnancy, parturition and post-partum conditions. In vomiting of pregnancy the indications are to be traced to disordered stomach, the result of errors in diet, accompanied by reflex irritation from the uterine plexus, through the cerebro-spinal system rather than through any degenerative, inflammatory, or toxic process.

The patient is usually of the mild type of disposition; weeps easily; inclined to be despondent; hypochondriacal; out of sorts with everything; peevish and capricious, though not vexed; discontented; fretful; better in the open air; tongue coated whitish or dirty looking; desire for food but undecided as to what kind; aversion to rich or greasy food; eructations after eating, tasting or smelling of the food; bitter, bilious, rancid, sour, putrid; stomach disordered by fat food and pastry; nausea; disagreeable rising after eating or drinking; waterbrash; morning nausea; vomiting after each meal, of bilious matter and of food eaten long before; gnawing distress in stomach as from hunger; pain in stomach an hour after eating; accumu-

lation of sweetish saliva in mouth; taste like putrid meat, in morning, with inclination to vomit; food, especially bread, tastes bitter; very offensive odor from the mouth; *toothache*, worse evening and night and by warmth of bed. *Pulsatilla* is often useful in allaying the pains in threatened abortion; reflex convulsions.

Another most distressing condition during pregnancy, is that of ptyalism, possibly from auto-toxæmia. *Mercurius* seems to be the logical remedy, but salivation is not always relieved. There may be excessive hunger; vomiting; putrid odor from mouth; and ulcers of the mucous membrane; toothache; decaying teeth become loose and fall out; necrosis of maxilla; gums spongy; receding from the teeth; tongue large, coated whitish; impress of teeth on edges; syphilitic subjects.

During the period of pregnancy there are many times when belladonna may be required for general throbbing or frontal headache; congestion of head; excited, irritable, scolding temper, even convulsions; threatened abortion; bearing down pains; discharge of bright red blood.

Hyoscyamus: excitable; aberration of mind; sees images; muttering delirium; wants to run away; convulsions.

Stramonium: talking continuously; stammering; delirious; convulsions.

Ignatia: variable disposition; mental depression; grief; constipation; headache as of a nail pressing into the head.

Nux vom.: irascible; stubborn; overbearing; aggravated by use of alcohol, wines, beer; convulsions from excitement and irritation but not unconscious.

Moschus: hysterical and high state of nervousness.

Asafœtida: nervous anxiety.

Chamomilla: nervous, fretty, childish, pettish; diarrhœa, very offensive, like spoiled eggs; yellowish and watery; greenish.

Arnica: bad effects of over-exertion; misstep; soreness in pelvic region and abdomen; threatened abortion; passive hemorrhage.

Caulyphyllum: uterine pains, bearing down; threatened abortion; false pains; passive hemorrhage.

Cimicifuga: great depression; melancholy; sensation as if a cloud were hanging over one; uterine pains, running across pelvic region.

Aconite: fever; excitement; restlessness; fear of death;

threatened miscarriage from fear or fright; discharge of bright blood.

Gelsemium: congestion of head; head feels heavy; wants to lie down to rest it; sleep disturbed by mental activity; thoughts flying rapidly from one subject to another, preventing falling asleep; glimmering before the eyes.

Arsen. alb. and apis mel. are useful for swelling of the feet and limbs in albuminuria.

Cup. ars.: nephritis; albuminuria; diminished excretion of urea and other solids; tube casts; convulsions.

Merc. cor. s.: nephritis; albumen; degeneration of kidneys; tube casts, hyaline and granular.

LABOR.

Belladonna is a most useful and indeed, indispensable remedy during labor, when the os is rigid and unyielding; the patient is tormented by pains coming and going quickly; cutting, bearing down, in the first stage and, as the patient will say, "doing no good"; the patient excited and uncontrollable; head and face hot and red; spasms may intervene.

Cimicifuga is often useful for pains running crosswise; mental state one of despondency; gloomy.

Caulophyllum tincture: excellent for inefficient pains in second stage of labor.

Chamomilla: patient nervous; childish resistance to the necessary fortitude to endure the pains.

Pulsatilla—pains are irregular; flying about from place to place; down the limbs, instead of in the back and uterine region; specific for false labor pains; patient weeping. Pulsatilla has controlled convulsions in pregnant women, both before and during labor, when caused by reflex irritation.

Ignatia will often relieve the irritable, versatile patient; changing quickly, from jesting and laughter, to sadness and tears; grief-stricken patients.

Bell., caul., puls., and secale cor. are of service in delayed detachment of the placenta but the alert accoucher will not expect to await an opportunity to apply them.

Passive hemorrhage, ante-partum, where *placenta prævia* is not present, is often corrected by homœopathic remedies and the threatened abortion ended.

Belladonna: characteristic pains and condition, bright red, hot blood.

Ipecac: constant flow of red blood; nausea; collapse.

Sabina: dark blood and small clots.

Crocus: dark blood, stringy clots.

Trillium: profuse flow, dark clotted; history of previous hemorrhages.

Hamamelis: dark blood; want of tonicity of venous coats.

Caulophyllum: passive hemorrhage; want of tonicity of muscular fibre of uterus.

Erigeron canad.: constant passive or active flow in "bleeders."

Post-partum hemorrhage requires more active measures according to conditions causing the flow, but aside from correction of certain physical, or other causes, the usual remedies are often indispensable.

Arnica administered at the termination of labor relieves the general soreness of the patient, also that of the uterine muscles, and often relieves the distressing after-pains.

Caulophyllum is useful in grinding unbearable after-pains.

Belladonna: bearing down pains, coming and going quickly; soreness; headache; feverish; too much lochia, bright red, also suppression of lochia.

Acon.: fever; soreness; bright flow; suppressed lochia.

Chamomilla: irritating pain; patient fretful, cross, childish.

Puls.: changeable pains, first in back, then running down thighs (inside) to knees; mild temperament.

Cup. met.: serviceable in crampy, spasmodic pains.

Aconite, belladonna, phytolacca, bry. alb. will generally control inflammation of the mamma in its initial stage, although probably caused by infection from cracked nipples; if caused in this way, special antiseptic attention must be given to it.

Hep. sulph., in the higher potency, is recommended to prevent suppuration; in the lower trituration, to hasten the formation of pus.

Silicia, echinacea, mercurius, are also valuable in treating abscess, both before and after evacuation of the pus.

Arsen. alb., carbolic acid, echinacea, mercurius, silicia, belladonna, applied according to their indications, are useful medicines in puerperal or septicæmic fevers.

BLOOD PRESSURE—ITS VALUE IN DIAGNOSIS.

BY

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(Read before the Homœopathic Medical Society of the State of Pennsylvania, September, 1909).

IN the study of diseases, both acute and chronic, primary and secondary, it must be apparent to all careful observers that there are instances in the course of these various diseases when it is important to the physician to be able to recognize by the aid of physical signs the true condition of the heart and the circulatory apparatus.

There are certain physical signs well known, which when present will give unmistakable evidence of enlargement, of displacement, of valvular lesions, and to a limited extent degenerative changes.

There can be no more interesting subject of study and investigation than that of the vital force of the heart, a force upon which is dependent the healthful functions of all the organs of the body and ultimately life itself.

This motor, the heart, has a well defined work to do each day. For instance, in a normal heart there must be sixty to sixty-five thousand cycles each day; there must be a force exerted in the same time equivalent to that which would move about one thousand gallons of fluid through the left ventricle, having an estimated weight of three and a half tons. Add to this the work of the right ventricle and the additional force required to overcome the pressure of the blood and the above figures may be doubled,—not a mean amount of work for the size of the motor. It follows as a simple fact that if there is a normal load line of pressure, an increase or decrease of this pressure must increase or decrease the work of the heart.

Change of pressure in the blood vessels may occur from various causes, either physiological or pathological.

An increase of pressure may act in one or both of two ways; it may not only increase the material work to be done but of more importance still, it may set up changes in the cellular elements of the various organs and even in the circulatory

apparatus itself, which will seriously interfere with their functions and so become a source of pathological changes.

The initial changes inducing such an increase of pressure may proceed from a pathological condition in some other organ than the heart, as for instance in chronic nephritis.

Acting upon the belief that this varying pressure above the normal is considerable of a factor in diseases, certain instruments have been devised to so measure it that these measurements may be used as a physical sign.

The ideal measurement to be obtained would be to do as it has been done in certain animals by connecting the column of blood within an artery with a manometer, by means of a rigid tube.

In man this is not practical and the instruments that have been devised in its place attempt to balance the pressure of the blood within an artery by graduated pressure applied externally.

There are three factors as the true cause of this pressure; first, the force of the heart beat; secondly, the volume of blood thrown into the aorta at each systole of the heart; and, thirdly, the peripheral resistance in the capillaries and arterioles.

These three factors being accepted as the source of the blood pressure any change in this pressure from the normal will lead at once to an investigation of any one or of all three of these sources as a possible cause of the change.

This pressure, as demonstrated with one of these instruments is known as systolic, at that point where the radial pulse is obliterated; as diastolic, at that point where the oscillations of the column of mercury are greatest; as the mean pressure by taking an average between the systolic and the diastolic.

This latter point corresponds with the arterial tension as determined by the finger on the radial pulse, between beats. This mean pressure should be carefully considered. It is not unusual to confuse it with the systolic pressure or to be deceived by the thickened walls of the artery, as from sclerosis or hypertonus, into the belief that the pressure required to obliterate the pulse is due to the pressure from the blood. There may be a relationship between these two, but they are not one and the same.

Having determined that the resistance in the capillaries and arterioles is an important factor in the cause of increased arterial tension, a reasonable explanation of it was sought for

and found, it is believed, in the poisonous products retained in the blood as the result of either deficient elimination of the excretory organs or else from added poisons from the disease itself. These substances act as irritants on the walls of the capillaries and arterioles, setting up a reflex spasm or hypertonic condition of their walls and creating increased peripheral resistance.

With this understanding of the blood pressure we have a working basis for the use of it as a physical sign in certain diseases. High pressure, as a rule is of more significance than a low one. The conditions giving the lowest readings are shock, collapse and concealed hemorrhage. In visible hemorrhage attended by nervous excitement, fear and apprehension the pressure is raised. The acute infectious diseases, anæmias and cachexias and the terminal stages of all diseases show low pressure.

Considering the normal systolic pressure to be 100 to 130 for young adults; 100 to 145 for older adults; children 90 to 110; and infants under two years of age 75 to 90; the normal diastolic pressure as 25 to 40 below the systolic, in any one of these classes, I will proceed to illustrate some of the diseases in which this physical sign may be of use, not only in diagnosis but also in estimating the value of the treatment prescribed.

The first case is that of Mr. C., a gentleman weighing 240 pounds, age 61, active and in fairly good health except for various pains in the limbs, both upper and lower, which he ascribed to rheumatism. Also a fluttering sensation about the heart with paroxysmal pain. The heart symptoms were the ones that most concerned him as he feared that these symptoms, in connection with his size and weight, were the early evidence of serious heart trouble.

An examination of his heart showed it to be normal in size, rhythmical, 68 to 72 in frequency and no valvular lesion.

Urine normal; blood pressure 165.

Excluding the heart and arteries as the source of this increased pressure the explanation of it was found in that it was due to some irritant in the blood. Gout was diagnosed, and this diagnosis was further confirmed by the evidence obtained later of his wife, who said that he was a heavy eater of all good things, especially fond of meat, coffee and tobacco, and in the past had been a user of alcoholics to excess. A favorable prognosis was given with the understanding that a de-

cided change in his habits and diet was essential to its fulfillment.

There are other constitutional diatheses, as diabetes and rheumatoid arthritis which are frequently associated with high arterial tension. Over-eating, more especially excessive meat eating, may be a cause. In such instances, perverted or defective metabolism, with resulting absorption of toxic products into the blood, and imperfect elimination are the important *étiological* factors.

Typical instances of high blood pressure are found in association with chronic interstitial nephritis or granular kidney.

In such instances the high pressure is not due to the obstruction in the diseased kidney itself but to the poisonous products retained in the blood as the result of imperfect elimination by the kidneys. Instances of this kind are frequently met with.

The high pressure is a valuable sign as an early symptom, in those cases where an examination of the urine is negative as to albumen and casts, and yet the symptoms suggest nephritis, as in the following instance: Case No. 300, male, age 67, occupation, attorney; weight 136 pounds. An energetic worker. Complained of pains about the shoulders and head; up at night to pass the urine once or twice; paroxysms of eructations lasting an hour; heaviness of the head and some tinnitus; occasional attacks of diarrhœa; irritability and lack of capacity for usual work; urine sp. gr. 1022, no albumen nor casts; heart, rhythmical and 92 pulsations to the minute sitting; no murmurs; walls of the radial artery slightly thickened; blood pressure 160. Diagnosed as chronic nephritis. Subsequent examinations of the urine showed uric acid showers and numerous casts. Under treatment the pressure in three months' time became 135, with improvement in the other symptoms. Following a trip abroad with an absence of two months the pressure returned to 160. Still under observation. It is a good working rule, I believe, to consider the cases of this disease that show prompt lessening of the high pressure under treatment, to have a more favorable prognosis than those cases which maintain the high pressure although the other symptoms show a favorable change.

In the affection known as eclampsia the arterial tension is said by Broadbent to be extremely high. The explanation of this condition, as offered by him, is that though the kidneys are not diseased, the extra work of eliminating the waste pro-

ducts of the foetus in addition to those of the mother is too much for them and in consequence toxic products accumulate in the blood, as in the case of granular kidney, and produce similar phenomena.

If this is true then high blood pressure in a pregnant woman should be a physical sign of importance.

Case No. 338, age 41, female, single, occupation, bookkeeping; weight 170 pounds, and blood pressure 180.

To look at she is a woman to be picked out for her appearance of health. Her principal symptom is shortness of breath from little exertion. No asthmatic attacks. Cough and with a sweetish expectoration that suggests the taste of blood yet none has been raised.

Urine is normal, the bowels are costive.

Heart examined and found to be regular with a frequency of 88 to 100 per minute. In the aortic area a loud murmur heard with the systole, transmitted upward along the right side of the sternum to the right sterno-clavicular articulation where it was most audible, and also heard over the carotids in the neck.

In all stenotic murmurs the first point to determine is whether there is obstruction or not. Roughening of the orifice or valves, slight congenital malformation or a shred of fibrin hanging from the edge of a valve may give rise to a loud systolic murmur without giving rise to any appreciable obstruction to the course of the blood. Her history was good, there had been no acute inflammatory diseases and her age and personal appearance contraindicated any of the likely changes leading to stenosis. After a careful estimation of the size of the left ventricle and the character of the pulse in connection with the high blood pressure the diagnosis was made of a true stenosis.

Toxic substances introduced into the blood may be the cause of increased blood pressure. Lead will cause it and alcohol and tobacco are suspected. Knowing this the degree of blood pressure may be the deciding point in a difficult diagnosis.

Case No. 331 illustrates another point. Female, single, age 51, occupation a school teacher, weight 160 pounds, blood pressure, 200; pulse, 80. Symptoms mostly those as expressed in the patient's language as "nervous." Wanted to be braced up till the school term was over (this was June 5) tired in the afternoons, severe flushes of heat. Sense of great pressure in

the chest as if unduly inflated, nervous chills, not sleeping well, wakes at night and then has difficulty in getting to sleep. Menses absent for the past six months, and have been irregular for more than a year.

The high pressure in this case is probably due to hypertonus. In hypertonus the condition of the vessel wall must be taken into consideration. The wall of the vessel varies greatly in thickness and elasticity in different individuals, at different periods of life, and in health and disease. In hypertonus there is contraction of the muscular coat almost amounting to spasm and in consequence of it the resistance to pressure is increased. With it at the same time there may be actual hypertrophy of the muscular coats which will intensify the resistance. Hypertonus, when present, exists throughout the arterial system and it is the narrowing of the vast network of arterioles which causes the increase in the peripheral resistance. This condition of the vessel walls may be mistaken for that condition known as arterio-sclerosis, in which there is a more permanent thickening of the arterial walls, due to pathological changes and accompanied with high blood pressure, so long as the heart is enabled to overcome or is equal to this increased resistance. The pressure due to hypertonus is likely to vary more in a series of tests than a similar condition, due to arterio-sclerosis.

Case No. 313, male, married, age 52, occupation, undertaker; weight, 225 pounds; pulse, 68, regular, and blood pressure, 125. This man is short set, florid of face, very active in his daily life, a hustler, fond of good food, yet temperate in his diet because of restrictions that have been put upon him, uses alcoholics and tobacco occasionally.

Urine has always been purulent when examined any time within the past five years. Albumen sometimes present in small quantities, sometimes absent. Sp. gr. 1015 to 1020. One or two hyaline casts are sometimes found in a single field and then again are absent.

Symptoms of so-called uræmia have at times been present.

Five years ago he was seriously ill after using a catheter for a few times. His illness then was due to faulty technique and a consequent infection, as he had not been instructed in the proper use of such an instrument. After frequent washing of the bladder and a month's careful nursing he was able to resume his daily business. He has chronic nephritis, with cystitis, and an enlarging prostate. The value of his blood pres-

sure as a symptom is that it leads me to believe that elimination is good, and in consequence there are no toxic substances being retained in his blood to augment the pressure in his arterial system. While this elimination continues the pressure is likely to remain good.

Case No. 337, female, married, age 38, pulse of 120 sitting and 128 standing; blood pressure, 115.

Complains most of her heart thumping both day and night, either when quiet or when moving about; fearful of dying and leaving her children; great depression mentally, with much weeping and tendency to talk of self destruction.

Heart examined and a pronounced murmur, systolic in time, was heard in the tricuspid area.

Urine examined and found to have a sp. gr. of 1015, no albumen, and but one small granular cast was found.

Eyes protruding with a white ring of sclerotic showing. Slight enlargement of the thyroid. Diagnosed as Parry's disease.

There is nothing diagnostic in this blood pressure but it is of clinical interest to note that the pressure is not increased in this disease as determined in this one instance.

Brunton believes it is the internal secretion of the thyroid gland that quickens the heart in this disease as well as dilating the vessels. The fact that the vessels are dilated might be a probable explanation why the blood pressure is not increased.

In typhoid fever the blood pressure, as I have observed it, in a number of cases is not significant unless a pressure below the normal is of value. In the cases that I made use of this test the pressure was between 85 and 100. The cases so far observed by me are too few to give any reliable data as to the course of the pressure and the possible variations due to various complications occurring in this disease. I am in hopes that some useful data may be found from observing a large number of cases and from many observations made throughout the full time of the disease from incubation to convalescence.

Case No. 318, female, age 24, unmarried, weight, 149 pounds; pulse, 80 sitting, and 96 standing; blood pressure systolic, 130; diastolic, 100. Complains of rapid heart action, palpitation, delayed and scanty menses, the flow being pale in color; haemoglobin 40. Diagnosed as chlorosis. In this disease the deficient haemoglobin seems to have no effect upon lowering the blood pressure.

A second case of the same disease, with almost identical symptoms gave a pressure of 130 systolic and 110 diastolic.

Cases Nos. 310 and 330 are cases of tuberculosis.

The first one is an instance of the disease arrested. Female, single, age 37; occupation, school teaching; blood pressure, 110 systolic and 100 diastolic.

Family history, father and mother both died at the age of 40 of tuberculosis.

Three years ago the disease became active in her right lung in the apex. Since then she has been continuously under treatment, for one year in a sanitarium about twenty miles from Philadelphia and the remainder of the time in New Jersey. This latter part of the time, that is, for the past two years, she has carried out the same line of life as she learned at the sanitarium. Her daily temperature is now 98.6 morning and night. A radiograph shows an area of consolidation in the right apex with a possible cavity. If the blood pressure becomes higher and finally normal it will be very encouraging and may be taken as evidence that the disease is under control.

MEASLES AND RED LIGHT.—Simeonescu, in *La Presse Medicale*, gives two cases of much comparative interest. One child was kept in a room whose walls were tapestried in red, and with red curtains; the other in an ordinary room. With the first patient the morbid phenomena were much less pronounced and recovery much more rapid than with the other. The writer has no doubt that red light has a markedly abortive influence upon the disease and its most serious accompaniments, such as broncho-pneumonia and high temperature. Expensive construction, such as Finsen light paraphernalia, are not necessary, a large room whose walls, furniture and curtains are red answers all purposes. Apparently, the measles germ and its toxin rapidly lose their potentiality, shown both in the exanthema and in the ordinary complications.

THE ACROMIAL SYMPTOMS IN PHTHISIS.—On the side of the diseased lung, the collar-bone is often lower than on the sound side; in 245 cases this was noted 193 times. The sign, however, is valueless in scoliosis and where both sides are affected, and the author sought a more dependable symptom, and believes that it has been found in a phenomenon of motility, viz., that the point of the shoulder, the acromion process, of the affected side moves on inspiration, very noticeably backwards or else does not move at all. In 356 cases, this symptom was found 343 times, and of this number 321 on the correct (or affected) side.—Dr. O. Kuthy, *Zeitschrift f. Tuberculose*, B. 14, H 3 and 4.

THE MODERN SURGICAL TREATMENT OF KNEE-JOINT DISEASES.

BY

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RECENT advances in surgery of the knee-joint have prompted me to make this my subject. It has not been many years ago that an operation upon this, the largest joint, was considered with a great deal of anxiety, because of the danger of infection and the liability of a stiff joint resulting.

With the advantages of asepsis, improved technique, and a better understanding of the tolerance of the synovial membrane, operations are now undertaken more promptly; with the result that the function of the joint is more often preserved, a deformed limb prevented and sometimes an amputation averted.

In 1890 Phelps stated that ankylosis was the result of intra-articular inflammation rather than long-continued immobilization; and while this is no doubt true in tuberculous joints where prolonged rest is often indicated, yet in the more active infectious diseases of the joint better functional results are obtained by resting the joint, only during the very acute symptoms, and after these subside using active and passive movements, very gently at first, together with such measures as massage, Bier's hyperemia and heat to control the inflammation.

In some forms of tuberculosis of the knee-joint early operations are now carried out with good results, this is particularly so in primary synovial tuberculosis described by König as *hydrops articularum tuberculosum*. The early changes in this form are very slight, the synovial membrane is very little altered. At this time the joint can be opened, washed out with normal salt solution, dusted with iodoform powder and the wound closed with the prospect of healing and good functional results.

When the tubercular process starts in the adjacent bone as it more frequently does, it may, under appropriate conservative treatment, be arrested with the formation of cicatricial tissue; or, it may form a bone abscess and open externally; or, what is most often the result, it may rupture into the joint. When the joint is invaded suddenly in this way, the earlier it

is opened the better are the chances of its recovery with function, for at first the whole synovial membrane is not affected, as a simple sero-fibrinous exudate into the joint precedes the rupture and tends to limit the spread of the tubercular products.

In the adult when the focus is confined to a small area of bone it is sometimes possible to localize it by means of the X-rays and cut short the course of the disease by a clean excision. The wound should be dusted with iodoform powder or wiped out with Harrington's solution and closed. The limb must be immobilized until firm cicatrization has taken place.

When the joint is extensively involved in the adult, and a stiff joint is inevitable it is well to proceed to a complete resection; especially in that class of patients who cannot afford the long course entailed by conservative treatment, and who cannot carry out the proper regimen of diet, hygiene, and change of climate.

When recovery takes place from conservative treatment there is a strong tendency toward flexion deformity, which is hard to overcome; for this reason partial operations are not satisfactory as there is not only the danger of a relapse but also the possibility of a resultant flexure.

In the operation of complete resection all the diseased tissue must be removed, the synovial pouches dissected out, and the deep foci in the bone excised with the chisel or heavy sharp knife. Firm bony ankylosis is the ultimate object and can be brought about by good coaptation of the ends of bones kept in place by kangaroo tendon sutures or wire. The limb should be immobilized at once by plaster, later a well-fitting brace can be applied and must be worn for a year at least, as bony union takes place slowly in these cases and anything short of complete ankylosis will be followed by pain and a tendency toward flexion, necessitating the wearing of a brace indefinitely.

In the young when conservative measures fail, simple erosion of the joint, sparing as much as possible, gives the best results. We may expect in some cases, even though the joint be opened, to obtain good functional results. I recall the case of a girl seven years of age who had a tubercular caries of the upper end of the tibia involving the articular surface. The joint was opened, the necrotic material removed and the wound partially closed, leaving a rubber drain at the inner angle. The cavity filled in with granulation tissue, cicatrization followed; and complete function of the joint was obtained.

Simple traumatic arthritis should yield to rest and heat. We should be on our guard, however, to note at the earliest moment any change that might indicate the beginning of tuberculosis. There may be a subacute form of traumatic arthritis of the knee-joint produced by repeated irritation in consequence of a deformity, such as flat-foot. The knee-joint bears the brunt in these cases of the jar in walking. The inflammation usually subsides when the deformity is corrected.

In infectious arthritis we should search for the source, whether from a wound, gonorrhea, lung diseases, infectious fevers or through the tonsil or naso-pharynx. The commonest form is the gonorrheal, the one responsible for too many stiff joints. We should be able by early and proper treatment to prevent many of these useless joints.

No one method can be used. When there is much effusion into the joint some of the fluid should be aspirated and examined for gonococci, if none is found the inflammation is due to the irritations of toxins. These cases do well under simple aspiration, supplemented by Bier's hyperemia, massage, and active and passive motion just as soon as the very acute symptoms subside. When the gonococci are found in the aspirated fluid, the joint should at once be opened and irrigated, the wound partially closed and drained by a rubber tube; active and passive motions should be started early.

In some cases there may be little or no effusion into the joint, but the periarticular structures are inflamed and swollen. I recently treated a case of this variety by Bier's hyperemia. The knee was swollen, tender and flexed. The elastic bandage was applied well up on the thigh and allowed to remain four hours at a time with an interval of two hours' rest during the day and night. The pain quickly disappeared, and the swelling gradually subsided. Active and passive motions were early started and continued until complete function was obtained. No immobilization was carried out, the patient was up and about on crutches and was encouraged to flex and extend the leg as much as possible. The crutches were used until the acute symptoms had well subsided when she gradually began to bear weight upon the joint; and ultimately entirely recovered. In the meantime she was treated for the primary gonorrhea.

The villous form of arthritis when it shows no tendency to undergo absorption should be treated by dissecting out the villous growths.

Anti-gonorrheal serum should be of value in the treatment of these cases and no doubt will be when its application is more general.

Acute suppurative arthritis must be treated actively. It is either caused by a wound or secondary to some infection. When the streptococci or staphylococci are present, and there is no wound, the arthritis is often secondary to an osteomyelitis which should be found and treated.

The joint in acute suppurative arthritis, if opened early in the course of the disease, should be washed out with 1-1000 bichloride, followed by normal salt solution. It can then be partially closed, with rubber drains in each angle of the wound. The incision may be the one used for typical resection or a transverse one across the patella from condyle to condyle. The patella must be sawn through and the joint freely opened. By forced flexion every crevice of the joint can be exposed and thoroughly irrigated.

In cases in which operation has been delayed and destructive changes have taken place, Allen's method of thoroughly washing out the joint and packing it with iodoform gauze can be followed. I have a preference in these cases to wipe out the joint with Harrington's solution as advised by Summers and then pack it with iodoform gauze.

When a stiff joint has resulted with deformity the operative treatment consists of making an effort under anesthesia to straighten it and if possible by massage, active and passive motions obtain some function. When this is not possible division of posterior tendons and fascia may be necessary. When complete ankylosis has occurred some success has been attained by dividing the joint and interposing a flap of muscle. Murphy by this method was able to obtain 15 degrees of motion in a joint that had been absolutely fixed.

In an effort to obtain a movable joint in a knee-joint ankylosed at right angles Lexer transplanted an entire knee-joint from a freshly amputated limb. Good union resulted with function of the joint; active motion which was less than passive was improved by muscle transplantation.

In conclusion, I would like to say that in operations upon the knee-joint strict asepsis should rule. That if this can be assured we need not hesitate to open the joint or repair a fracture of the patella, to remove foreign bodies, hypertrophied fringes or joint mice, or to excise a troublesome dislocated car-

tilage. Sepsis and immobilization of the joint mean ankylosis. That when operation is indicated it should be carried out promptly.

X-RAY THERAPY IN DISEASES OF THE SKIN.

BY

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It has been the history of the introduction of many a new therapeutic measure that extravagant claims are made for its curative effect, creating a wave of enthusiasm which meets with such general disappointment that it is thrown aside as useless. Later, after further investigation and experience in its use, it assumes its proper place in the medical armamentarium. Especially has this been true in regard to X-ray therapy. Heralded as a cure for many diseased states hitherto deemed incurable or curable only by severe and painful operative measures, it was adopted by many physicians who had no conception of its action or of proper technic in its application. Their results were often *nil* or disastrous; disastrous, not only to their patients, but to the operators themselves, resulting fatally in many instances. When these facts became known, it had the effect of throwing this method of treatment into undeserved disrepute. One reason of the varied results obtained by different operators was due to the fact that we had no means of measuring the dosage; and, to a large extent, each one was compelled to depend upon his own experience and observation in its application and, as the personal equation of the operators varied, so did their results. The X-rays have now been thoroughly tested by clinical use and experiment and the dosage fixed almost as accurately as that of any medicinal therapeutic agent; and to insure good results they must be applied as any powerful drug with a knowledge of their limitations and dangers.

Soon after the discovery and application of the rays for diagnostic purposes it was noted that in some of the cases a dermatitis of varying severity with loss of hair was produced. This was the beginning of X-ray therapy. Experiment and in-

vestigation have been carried on until now we know its exact effect upon the various tissues. In the consideration and application of any therapeutic agent its physiological and pathological action should be well understood in order to apply it intelligently. In the use of no other remedial agent is this more important than in the employment of the Roentgen ray; for its rational indications depend upon its action upon living tissue. Briefly described; its first action upon the skin is stimulation, followed by a superficial dermatitis and pigmentation. When carried further the dermatitis becomes vesicular and after this a cyanosis of the skin; and still further exposures cause a degeneration, first of the more highly differentiated appendages of the skin, the nails, the hair follicles and glandular structures. The skin becomes dry and wrinkled, and papillomatous growths develop. Subsequent exposures set up an obliterative endarteritis with trophic nerve degeneration and general atrophy.

The next stage is ulceration and necrosis of the skin with tough, closely adherent sloughs that show little tendency to separate from the underlying tissue. This ulceration not infrequently degenerates into a malignant process. This latter fact is especially interesting to the homœopathic branch of the profession as the Roentgen ray is the only definite agency in the history of medicine which has undoubtedly produced cancer and has, as unquestionably, cured it.

To the other branch of the profession this fact has been a puzzle and they do not attempt to explain the seeming paradox. The rays are probably not bactericidal; and yet, in various dermatoses, due to the presence of micro-organisms they have proven curative. The results in these conditions have been explained by their action on tissue of low resistance, destroying and rendering it barren for the propagation of the bacilli. Recently it has been shown that in the treatment of this class of cutaneous affections the opsonic index is raised against the attacks of such causative micro-organisms present; such effects being due, probably, to the setting free of an autogenous, immunizing antibody. Having knowledge of their physiologic action we are better prepared to intelligently apply the rays to the treatment of the numerous pathological cutaneous affections. Why they should be beneficial in such varied diseased conditions has been explained by the fact that every morbid process has a natural inherent tendency to right itself and that

any change of environment or external impulse will facilitate this change from the abnormal to the normal condition.

A few years ago an eminent European homœopath penned a series of articles in which he endeavored to demonstrate that all departments of physical therapy depended for their curative results upon the law of similars. Several writers have dwelt upon the possible homœopathicity of the Roentgen rays in their effects on skin diseases. Possibly they furnish their quota to prove the widespread application of the law and their curative effect in such a large variety of dermatoses may be due to their being homœopathically indicated. No conservative dermatologist applies this method of treatment to all cases which present themselves. Many cutaneous affections are successfully treated by other means, much more easily applied; nor should entire dependence be placed upon this treatment. There is no doubt that in most, if not all, cutaneous diseases there is an internal or a pre-disposing cause producing metabolic changes in the skin, rendering it vulnerable to external irritants and exciting micro-organisms. And in the treatment of many skin affections much can be done by the correction of any underlying pathologic condition and rectification of any systemic derangement. The X-rays are not a cure-all but their field of application in dermatology is very extensive and X-ray therapy is the most generally useful addition to our means for the treatment of skin diseases which has ever been made. In the use of the rays the principle of treatment is always to produce a sufficient therapeutic effect without undue reaction. In their application to skin diseases, except those of a malignant type where the condition warrants some risk, the aim is to keep the effect well below the production of acute dermatitis and in the various technics, in the use of this agent, all means are attempted toward the accomplishment of this end.

The limits of this paper will not permit me to go into detail, or to mention every cutaneous disease which has been successfully treated by the X-rays, so I will report some cases of the more common dermatoses, choosing the most typical of those treated. The results in these cases will, I trust, be convincing as to their efficacy.

Epithelioma, if taken in its early stages, can almost invariably be healed by the Roentgen rays, as can also a fair proportion of advanced cases. The advantage of this treatment over older methods is its safety, convenience and painlessness

and perhaps, most important, the better cosmetic effect. Some authorities claim that the results are not as permanent as when more radical means are used. However, my experience has been that they are quite as much so; and if recurrence should take place it is easily controlled by re-application. In this disease as in other malignant conditions their therapeutic action depends upon their power to destroy cells of low resistance without destruction of the normal cells.

Miss A., aged 52, gave the following history:

About twenty years ago she noticed a small wart on the forehead above the right eye which gradually increased in size and finally broke down, leaving an ulcer which spread until it was about the size of a dime. From that time she has, almost constantly, been under the care of physicians. On two different occasions she thought it was entirely well after cauterization; but each time the scar tissue broke down and the ulcer became larger than before. On examination I found an ulcer extending from the eyebrow nearly to the hair and about one inch wide. It was covered with adherent crusts and surrounded with a pearly, elevated border. At times there was severe pain of a stinging character, extending to the top of the head. Treatment was given twice a week for two months, then once a week for about six weeks with the result that the ulcer is replaced with a smooth, healthy cicatrix.

This case was treated over two years ago and I believe that we are justified in considering the cure permanent.

In the cure of "acne," the therapeutic results, probably, are due to more than one action; first, by causing atrophy of the cutaneous glands they diminish their functional activity and arrest their secretion; second, by destroying bacteria they inhibit the formation of pus.

Miss M., aged 25, brunette; general health fair; but is troubled with constipation and occasional sick headaches. This was the most severe case of "acne indurata and pustulosa" that I have ever seen. The pustules were deep seated and so closely aggregated that an incision in the skin at almost any point on the face or forehead would be followed by a discharge of pus. She had been in this condition, with some improvement at times, for about fifteen years; and, during the greater part of this time, had been under treatment by various physicians. Two treatments a week were given for about three months when the skin appeared entirely free from any lesions. Of

course, numerous scars are left and there is a slight atrophy of the skin; which, however, is barely noticeable. Since discontinuing the treatment there occasionally occurs a small papule which soon suppurates and heals. At no time during the treatment was there more than a slight erythema developed from the exposures. This result occurred twice, but was not severe enough to cause a discontinuance of the treatments. Improvement in the condition was very apparent after three weeks' treatment and from that time on recovery was rapid.

In eczema the indications point to the usefulness of the rays in the treatment of the chronic forms where there is an inflammatory exudate and in which stimulation is needed for the absorption of the induration.

The following case illustrates the beneficial action of the rays in this condition:

Mrs. D., age 28, general health good with the exception of an inveterate constipation. Has suffered more or less all her life with frequent outbreaks of eczema of an acute vesicular type. Treatment both internal and local had relieved her general condition, so that for two years there had been no acute attacks; but there remained on the back of the right hand, near the base of the thumb, a thickly indurated patch about the size of a silver dollar which resisted all manner of vigorous treatment. The itching was intense, and uncontrollable by any local application. Eight exposures at irregular intervals, covering about six weeks were given with entire disappearance of the lesion. The second treatment entirely relieved the pruritus.

In treating acute eczema of the vesicular and weeping variety I have been unable to secure any beneficial results, except in the relief of the itching in some cases. In two cases it seemed to aggravate the condition, increasing the discharge and causing an intense burning in the lesions.

That the X-rays are most efficacious in the treatment of lupus vulgaris is to-day the common opinion among dermatologists. Their destructive effect upon bacteria in living tissue indicates their usefulness in this disease; and their application is the most brilliant which has been made in bacterial disease. But their power of destroying tissues of low resistance is also very important.

Miss L., aged 24, general health seems good, but she has a family history of tuberculosis. The eruption began about eight years ago as a small, bright red papule on the right cheek,

which finally ulcerated and became covered with a crust that fell off leaving a cicatrix. Soon other lesions appeared; until, when beginning the treatment, the disease had extended to both cheeks, nose and upper lip. This entire area was covered with nodules, ulcers, crusts, and scars. After five months of very irregular treatment, the exposures numbering forty-two, the case is apparently cured. About five months have elapsed since discontinuance of the treatment.

The treatment of keloid, by the X-rays is about the only successful method of permanent cure.

Miss N., aged about 35, colored, two years previous, had received a cut over the knuckles of the right hand, which on healing had developed an elongated keloidal tumor over the knuckles of the first and second fingers. It was elevated above the surrounding skin about one-half inch and interfered with the action of the fingers. This entirely disappeared after two months of vigorous treatments given bi-weekly.

Many other cases of intractable dermatoses have yielded to radiation applied in accordance with its known physiological effect, but I think a sufficient number have been shown to indicate its great usefulness to the dermatologist.

CONCLUSIONS.

1. Radio-therapy, although not a panacea, is the most valuable asset of the dermatologist.
2. Its proper application can be made only by one possessing a thorough knowledge of its physiological action.
3. Its use should be reserved for conditions not amenable to other forms of treatment that can be more easily applied.
4. Although it has a large field of usefulness, it also has its limitations and dangers.
5. Entire dependance should not be placed upon its use, but other indicated medical and hygienic measures should be employed in conjunction with it.
6. It should be administered with as much care as any powerful drug, and over-dosage particularly guarded against.

THE THERAPEUTIC QUESTION; ITS DIFFICULTIES AND ITS SOLUTION.

BY

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(Read before the Homœopathic Medical Society of the State of Pennsylvania, September, 1909).

PROPHYLAXIS of disease and the treatment of the sick are the ultimate aims of medical science. While vast improvements have been made in both branches, our knowledge and practice of them are still far from ideal. Were it otherwise, illness would be rare, the sick would invariably recover, and but two causes of death would be recognized, namely, violence and old age. Unfortunately the possible and the ideal are still wide apart, and it is this vast distance between the attainable and the desired end that is disappointing and has led to much of the pessimism that is rampant throughout the land. Physicians in the kindness of their hearts long for a medical Utopia. Humanity is sick, humanity must be cured; presto with the magic wand, and humanity is well! However laudable may be our Utopian ambitions, we must admit that they are unreasonable. It takes time to cure the sick. Careful studies must be made of patients even more perhaps than of their illnesses. In the majority of instances, a cure is obtainable only when patient, family and friends co-operate. Because the ideal is not always possible in the present state of medical science, we are only too apt to become pessimistic and deny the efficiency of treatment, especially that bearing upon the application or administration of medicines. As evidence of this pessimism, witness such sayings as the following: "He is the best physician who knows the worthlessness of most drugs"; "If all the drugs were cast into the sea better would it be for humanity and the worse for the fishes"; "Treatment consists mainly of nursing and *nux vomica*"; "He who purges cures." Really, it is possible for me to quote a remarkably large number of such cynical sayings. Personally, I have serious doubts if their originators ever took themselves seriously. It is very pleasant to invent phrases which jingle to the ears and which give the impression of wit. When these pessimists are sick, I have noticed that they are very much like the dying atheist who turns to his

Almighty, and is ready to seek help with the avidity of the therapeutic optimist.

Certain factors are necessary to the advancement of a therapeutic science. The first is a correct understanding of the action of medicines. This cannot be attained without an amount of work that is almost beyond the conception of the human mind. So great indeed is it, that the few who have undertaken the task seem to have been overwhelmed by it, and have thus far accomplished but little of practical value. We have provings, it is true, but these were made many years ago, and their value is invalidated in some directions by their evident inconsistency with the modern discoveries in the medical sciences. On the other hand we find that in other directions, modern medical science has strengthened some of these older observations. Unfortunately, the evident falsities are permitted to stand in literature and thus serve to cast a doubt upon the value of the "known to be good."

A *materia medica* must be consistent with the *positive* facts of pathology. This statement in the abstract cannot be denied by any one. But we are here up against the statement that what we accept as orthodox in pathology to-day may be heterodox to-morrow. When pathology is perfect, then that science must be a necessary prerequisite to the proper understanding of drug action. This leads me to remarks concerning the objective symptoms in drug provings. The modern surgeon is laying great stress on "dead house" versus "living pathology." He is striving to enforce the idea that there are stages in the course of "lesions" in which they present very different **features** from those observed on the autopsy table. Treated in their early stages, they are absolutely curable; treated in their terminal stages with their many sequelæ and complications, they are doomed to inevitable failure. In drug provings, it cannot be gainsaid that the study of drug action which takes cognizance only of a terminal result, as carcinoma, ulceration, neuritis, etc., is inefficient for practical use. We must have knowledge of the stages intervening between the time of health and the terminal lesion or lesions. The terminal results are possible only in experiments on the lower animals, for they are so serious in their nature that their production in human beings amounts to suicide or murder. Experimental work of this kind in the laboratory must be very uncertain in its results, because in our haste to make observations or to produce lesions

or symptoms, we are too apt to confuse the dynamic or essential, the mechanical and the chemical effects of drugs. The latter two are comparatively useless, as we all know, not that they are to be ignored, but they must be accorded their proper place in drug pathogenesis. A terminal pathology is moreover useless because it is practically never the result of a single or primary cause. Outside factors are always interjected. This remark applies to the effect of medicines as it does to morbid conditions.

Experiments with medicines must be performed repeatedly in order to secure accuracy of result. It will never do to be satisfied with observations that have not been confirmed repeatedly either in provings or in the clinic room. As the number of medicines is legion, the endless character of our task is appreciated readily. Such work requires men, brains, time and money. The men best qualified for the task are those who prescribe the medicines in the sick room. Unfortunately, they are also the men who can the least of all give the time up to the work. Still they are the ones to do it. Its monumental character should not be a deterring factor. To admit otherwise must premise that the work never can be done. Given the best of brains and abundance of time and money, no one can do more than a fragment; I would go so far as to say that he can contribute only fragmentary knowledge concerning even one medicine. When, however, it is recalled that there are over 125,000 physicians in the United States, and all of them interested in the subject, the value of fragments from each must result in something of great value within a short time providing they will work. The work continued over years must bring even better results.

The contention that all physicians will be neither able nor willing to engage in such work is strictly true; but that a sufficient number will do so to make the effort of practical value, goes without saying. Heretofore, our studies of drug pathogenesis have failed because too much has been expected of individual men, just as in the past, that which we have is the product of too small a number of minds, and hence is open to the objections incidental to personal equations on the part of observers.

While my remarks are based upon the standpoint of the homœopaths they apply with equal force to physicians of the dominant school. The regular readers of the journal of their

Association cannot fail to have been impressed with the longings of the rank and file for simplified prescribing (the single remedy), the smallest or most efficient dose, the growing unpopularity of empiricism and the pocket formulary, and a thorough understanding of drug action. With their great numbers, their many colleges and laboratories, their large endowments, their profession as such has done and is doing little to advance our knowledge of *materia medica*. The bulk of the work is done in the laboratories of great pharmaceutical houses having large commercial interests. While most of this work is done well as far as it goes, it is by no means efficient. Some few private or college pharmacologic laboratories are working hard, but they undertake too many drugs, their observations thus far are superficial, and their findings are remarkable for their iconoclastic nature.

But comparatively few physicians will be able to secure subjects upon which to make their observations. Nevertheless, the truly enthusiastic will find occasional opportunities. Medical students and laymen and other physicians who are willing to offer themselves for reasonable experimentation exist. Greater opportunities will be found for accidental provings. Under this heading, I would include that not very small class of persons who present idiosyncrasies to this or that medicine. In my own practice, I have found patients exhibiting the following idiosyncrasies: A young woman who despite the beneficent action of bismuth on her stomach, invariably after a few days suffers from small superficial ulcers of the buccal mucous membrane; three patients who are made delirious by *digitalis*; a large number who get the physiological action of *atropia* from very small doses, one from a single dose of but a 1-1200 of a grain; another whose albuminuria is invariably aggravated by *digitalis*; a number who become intensely nauseated from small doses of *morphia*; occasional ones who have general pruritus after *morphia*; oedema of eyelids and gastric irritation from almost infinitesimal doses of arsenic; scarlatiniform eruption and serious cerebro-spinal disturbances from quinine; typhoid delirium from *belladonna*; coryza and acne from *potassium iodide*; acne from various bromides; arrhythmia from *digitalis*; general nervous irritability from *strychnia*; etc., etc. Physicians whom I have met in consultation have referred to patients among their clientele who exhibit no less marked idiosyncrasies. These patients offer us unusual opportunities for

drug study, as their symptoms are almost invariably freed from the psychological factor, that of looking for symptoms, either on the part of the subject or his physician.

Lastly, all physicians have the opportunity of adding to our knowledge of the *materia medica* by the supreme test, clinical experience. Observations from this source, however, too often savor of gross empiricism, which though valuable in its way, is always open to serious objections by reason of the liability to incidental errors and multiple factors. Pharmacy men who call on me to make sales tell me of physicians who purchase certain remedies in lots of five to ten thousand tablets or pints of tincture or potencies at one time. Is it possible that such large lots of medicines can be used without some knowledge having been gained thereby. For example, here is a physician who purchases 5,000 tablets of *ferrum phos.* Does that man know nothing about the action of the medicine he buys and dispenses so freely? If the sales books of our pharmacies were opened to our inspection, we would find that the majority of men have their favorite drugs which they must use intelligently or otherwise. If we could but know their experience, would we not be wiser? It matters not whether the results be positive or negative, we can always learn by the perusal of their observations, providing, of course, they make careful records of their cases.

The careful recording of cases is after all the essential feature of the whole matter. Without records systematically kept, a physician is absolutely valueless to his profession. He is like a sponge, which absorbs but gives up nothing without being squeezed. Without records he is too dependent upon impressions and not upon facts. Without records he is deprived of the opportunity of analysis of cases.

The practice of reporting single or selected cases is to be deplored. Single cases, if they prove anything, prove the exception. The rule can only be proven by analysis of a large series. The same objection applies with greater force to selected cases. The latter furthermore exhibit the personal bias of their reporter.

In closing, let me say that I have touched upon many subjects, none of them completely. Indeed, I believe that they are all so great that no one man can speak authoritatively. Each physician can give his own opinions; it is the mass of the profession that must decide after hearing all the evidence. The verdict must be rendered without feeling, prejudice or ani-

mosity. We must free ourselves from the domination of those who may be called library doctors, *i. e.*, those whose whole knowledge of the practice of medicine is gained in the library and not by the bedside and in the consulting room. I believe that altogether too much is made of various agencies which act in large manner psychologically; while the various medicines, call them poisons if you will, which have such wonderful and varied actions that they must if intelligently used be of great value in the treatment of the sick. The essential point is that we know them thoroughly. I believe that we should not be frightened by the criticism of those who talk much and do nothing. It is not oratory and rhetoric, but work and action which count.

DIAGNOSIS AND TREATMENT OF STOMACH ULCER.

BY

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(Read before the Homœopathic Medical Society of the State of New York).

It is not my intention to go to the fullest depth of this subject, as time will not permit, nor do I think it necessary, but I will simply touch on the most salient points, so as to freshen your memory upon the subjects with which you are so familiar.

This subject is often taken up in two forms, acute and chronic, but I shall eliminate one form and take sides as to the existence of the other.

I question very much if gastric ulcers ever occur in an acute form. My belief is that when we have an acute abrasion of the mucous membrane of the stomach, it is due to traumatism as a result of harsh food, foreign substances, or external violence and under such circumstances, if the system is not in an enfeebled condition, repair takes place at once. Therefore, if an ulcer is produced from any of these causes, it is because of some other chronic condition.

When we have ulceration existing in the stomach and it subsides, we must not let the idea get uppermost in our minds that we have effected a cure, for the acuteness may subside for weeks, months, yes, even years, chronic symptoms existing con-

stantly during this time and in the end the so-called acute condition revives itself.

I do not believe that in stomach ulcers we can obtain a permanent cure, through medical treatment alone, in more than 15 per cent. of all cases. It is true that post mortems reveal scar tissue in the stomach in a great many instances, but I believe, in the majority of these, they have produced what I have heretofore termed acute conditions.

The causes of stomach ulcer are many. I will simply enumerate a few, such as traumatism, lowered vital force, anæmia, constant eating of dry toast, highly seasoned foods, chemicals and foreign bodies. The dry toast and highly seasoned foods ordinarily would not produce an ulceration unless the former conditions existed, as I believe that if the system were at its normal standard, Nature would take care of these abrasions.

Cooks, who are constantly tasting hot and highly-seasoned foods, are subject to this malady; it is also caused by tight lacing. Tailors, and shoemakers are liable to it from their cramped positions while at work.

Anemia is one of the foremost causes; the bacillus of dysentery may also produce ulceration; embolism, hemorrhagic erosion and sub-cutaneous hemorrhage are prominent factors.

When a patient, who is constantly complaining of what we all conveniently call dyspepsia, comes to us for counsel regarding a condition which has existed for months or years, it behooves us to make a differential diagnosis between some momentary disturbance of the digestive tract and that of a very grave malady, gastric ulcer.

You must bear in mind that hyper-acidity is not always present in ulcer, but only about one-third to one-fifth of the cases ever have this symptom. One other point I must mention at this time, and that is the tendency to confuse malignancy and ulcers. We cannot do so if we will bear in mind that the diagnosis between the two is comparatively easy by a chemical analysis of the contents of the stomach, as in ulcer, hydrochloric acid is either normal or in excess, whereas in malignancy it is always deficient and lactic acid is in excess. Hydrochloric acid in gastric ulcer is always to be found in the greatest quantities just before, at the time or after hemorrhage. This acid does not produce ulceration but prevents healing.

As I have said before, so-called chronic dyspepsia must never

be treated lightly, as it is one of the thickest veils for one of the most serious troubles in the human body.

We must not lose sight of the fact that ninety-five per cent. of the cases of chronic indigestion, gastric or intestinal, are due to some mechanical disturbance, which is amenable to surgical treatment. It may be biliary or pancreatic calculi, intestinal adhesions, chronically inflamed or adherent appendix, or chronic inflammatory conditions of the hepatic and pancreatic ducts.

I caution you right here that stomach ulcers may produce all the symptoms of the above conditions.

We will take up the subject of pain. In gastric ulcer there are two varieties, one is that which comes from food coming in contact with the abrasion, the other is more or less constant and is due to adhesions.

The pain from a stomach ulcer and that from a gall-stone or pancreatic colic has this difference: The pain of a stomach ulcer usually refers itself to the epigastrium, going through to the spine. That of gall-stone colic is confined to the juncture of the tenth rib, going through to the lower portion of the right scapula. That of pancreatic colic is referred to the same position on the left side.

One of the three above mentioned is, in my mind, in ninety-nine out of one hundred cases, wrongly termed gastralgia.

Another difference existing between the pain from stomach ulcer and affections of the pancreas or gall duct is that in the former case, the pain comes on after eating, the latter has no choice of time.

We may have a patient come to us, complaining of what is known as chronic dyspepsia, with an apparent spinal trouble. Perhaps nothing but a backache manifests itself and if we are not very careful, the first sad news that we may have of this pesky ulcer will be a fatal hemorrhage.

The cardinal signs are pains after eating, perhaps nothing but distress; epigastric tenderness, and the latter may not exist, but if it does not, you will have a tender spot to the left of the spine, immediately behind the stomach.

Dyspepsia, with vomiting, regurgitation or acid eructations, may be the only symptoms apparent. Possibly hemorrhage, but this occurs only in about thirty-five per cent. of the cases.

We must not forget that vomiting and hemorrhage are by no means constant symptoms with this disease, the former being

more frequent in the proportion of three to one, while our first hemorrhage may be the fatal one.

There are times that it will be a trifle difficult to find the soreness in the back, to which I have alluded, but if you will make quite firm pressure to the left of the ninth dorsal vertebra, you will usually discover extreme tenderness. At the same time the patient may complain very little until such pressure is made. This is especially true where the ulcers are on the posterior surface, where fully forty per cent. of them occur. If the anterior portion of the stomach is involved, the pain will be greater over the epigastrium. However, the pain may radiate almost entirely under the left scapula, as something over fifty per cent. of the ulcers are found in the pyloric zone.

I will not take up your time with chemical tests, as these can be found in any of the up-to-date text books, treating of this subject. By far the most serious complication that we may have is perforation, which comes on entirely without warning.

I have in mind two cases, both medical men, who had been bothered with so-called dyspepsia for three or four years; the first time that either could be led to believe that he had ulceration of the stomach was when perforation occurred.

One waited fifteen hours before submitting to an operation; the penalty he paid was death. The other case, being operated upon immediately, or within six hours, made a recovery.

If the cases are operated upon immediately, or within the first six or twelve hours, their chances for recovery are very good, but if they are delayed longer than fifteen hours, the chances are decidedly against recovery. About seventy-five per cent. of these are lost.

The barrier that is put up by medical men against operative procedure is the heavy resultant mortality.

However, it may be surprising to know that in the hands of competent surgeons, the mortality is but from four to five per cent., whereas we have perforations in upwards of twenty-eight per cent. of our cases. Let me repeat that the mortality in cases of perforation is as follows: Those operated upon within twelve hours, twenty-five per cent., those operated upon after the first twelve hours, seventy-five per cent.; those not operated upon at all, ninety-eight per cent.

Therefore, taking all cases into consideration, the mortality is far greater from that of the non-operative treatment. Opera-

tive treatment has this advantage—that it cures over ninety per cent., whereas medicine alone cures less than fifteen per cent.

When we are suddenly called to a case which has had a history of stomach trouble or so-called dyspepsia and find the following conditions: Sudden sharp abdominal pains, pulse becoming rapid, face taking on pallor, in fact, general symptoms of severe shock, it behooves us to at once make a diagnosis of perforation and immediately open the abdomen.

You understand that this same condition may arise from rupture in tubal pregnancy, perforation of gall bladder, also acute perforating appendicitis; of course we include both stomach and duodenal ulcers. When these symptoms are manifest and there is any doubt of the precise location of the cause, an exploratory incision is perfectly justifiable.

In the case of stomach ulcers that are amenable to medical treatment, four or five weeks should suffice to effect a cure. If, at the end of this time, recovery has not taken place, surgical aid should be sought.

The danger does not wholly lie in the ulcer of itself, but about six per cent. of stomach ulcers, when allowed to remain unmolested, develop carcinoma and this usually rises in the old scar tissue, where the ulcer is supposed to have been healed. Therefore, we must not lose sight of the fact that about 96 per cent. of all the cases of cancer of the stomach arise from ulceration. Taking this fact into consideration, is it not better to operate when we have ulceration and also remove the old scar tissue, than it is to try and operate or to cure after cancer has once developed.

In the medical department, we have but one line to carry out, that is, diet and rest, though of course the remedies given may help in some degree. In all cases of acute hemorrhage, this policy should be thoroughly carried out, unless the hemorrhage should become alarming, when surgical measures should be taken before the patient becomes ensanguinated.

In this class of cases the patient should be put to bed for at least two weeks, and nothing allowed to enter the stomach except milk or some of the pre-digested foods. If the hemorrhage is very severe, rectal feeding may be resorted to, but ordinarily I do not deem this procedure necessary.

When the milk diet is used, it is always well to add lime water or a trifle of bi-carbonate of soda: the latter is just as good, if not more efficacious than the lime water. The bowels

during this time should be kept thoroughly open by enemas. If this means is not sufficient to keep the bowels thoroughly cleaned out, you may give olive oil, should this be ineffective, then it will be advisable to give an occasional dose of castor oil, which I believe to be the least harmful of any of the laxatives.

Under these circumstances, when the patient has been on the milk diet for from ten days to two weeks, it is well to put him on what I would term a beefsteak diet, but the beefsteak must be shredded, so that nothing but the red fibre enters the stomach, and this must be taken comparatively rare. With this may be given thinly-buttered, stale bread, with the crust removed. This diet may be liberally given. At the end of four or five weeks of the above treatment, the patient may be allowed a general diet, as at this time the ulcer should be healed. If it is not, the chances are decidedly against success in healing under medical treatment, and the case becomes, in my opinion, a surgical one.

I believe, however, that the age of the patient should be given very careful consideration as a determination of the treatment.

If the patient is under forty years old, I would advise a longer course of medical treatment than in those cases where that age is past, for the simple reason that the latter class is more liable to border on malignancy and by instituting operative measures, it is possible to avoid a serious culmination in the vast majority of these cases.

It is not my intention to describe the different operations for stomach ulcer. I am simply going to tell you what, in my opinion, is the better one, as it would be needless for me to take up your time to describe something you all so well know.

Where the ulcers are situated in the body of the stomach or low down in the duodenum, the better operation is the gastro-jejunosomy, as this presents better facilities for drainage than can be found at any other point.

If the ulcers exist in the upper part of the duodenum or the stomach and there is a partial or complete stenosis, the Finney operation or the Gould modification of the Finney is the preferable one.

In dealing with the ulcerated portion of the stomach, it is not necessary to remove that portion. It may simply be folded in with the purse string suture, being careful to include in your suture all the blood vessels leading to the ulcerated portion, so as, first, to eliminate secondary hemorrhage therefrom; second,

in order that the blood supply will be all cut off. That portion of the stomach wall, Nature will deal with and leave you a good, healthy scar, the same as if you had excised.

In performing gastro-jejunostomy, one of the places where we are apt to meet failure is in not making the opening large enough. When the opening is too small, constriction is liable to be great and may entirely close the opening, therefore do not be afraid to make a large opening in the stomach, as it does no harm and on the other hand, it crowns your effort with success.

One other precautionary point I wish to mention. That is, where the jejunum is brought up through the transverse meso-colon, there is apt to be a constriction of the meso-colon which may cause obstruction. In order to obviate this trouble, the edges of the meso-colon should be stitched back to the walls of the stomach.

As to the after-treatment of these cases. Liquids may be allowed in the stomach as soon as the nausea and vomiting, caused by the anaesthetic, ceases, and as in most of them there is very little nausea following, it is possible to put liquids in the stomach within four or five hours, and one of the best that can be used is beer. Solid foods may usually be taken in from the third to the fifth day.

In my feeble effort, I have simply tried to bring some well-established facts before your minds, which perhaps are only lying dormant in the pigeon holes of your brains.

It has not been my intention to advance any decidedly new or startling theories in treatment, nor to convey the impression that this field has been fully explored.

My experience is capable of continual variation, as we can all testify from operative or medical cases.

New problematic conditions perpetually confront the practical worker, in which only good judgment can be of aid to the attending physician.

Malformations, personal characteristics of the patient or causes contributive to the malady, all may disarrange the most careful diagnosis, as we all know, but ordinary conditions prevailing, the treatment of stomach ulcers is extremely simple.

PRESIDENTIAL ADDRESS.

BY

E. MELVILLE HOWARD, M. D.

(Delivered before the Homœopathic Medical Society of the County of Philadelphia).

I THANK you for this great honor you have conferred upon me. It is a great honor when you select any member to preside over this very important county medical society. I feel that it has come to me entirely undeserved. I know nothing I have ever done which warrants my selection, unless it be a tolerably regular attendance during the years of my membership, and the presentation of an occasional paper. But this is no more than the most meagre duty of every member, and no more than many of you have done.

I am conscious of but one qualification for this office, and that is the possession of a very profound and exalted conception of the position, function, possibilities and obligations of the Philadelphia County Society.

In this, the third largest city of the United States, and the greatest medical centre of the English-speaking world, this representative society occupies a proud position, and shoulders grave responsibilities. This is the only legal representative of our profession, and to a very great degree, its activities represent, and reflect, the standing and progress of the homœopathic practitioners of this city. The science of homœopathy is in its keeping, so far as this community is concerned, and the final demonstration and triumph of the homœopathic principles is very largely in its hands.

I would not in any manner belittle the power and influence of the many other homœopathic medical clubs and societies of Philadelphia. There are sixteen of them and they are all filling their own niche of usefulness and mutual benefit. But these organizations can not, and must never attempt to, take the place of this official body, and could never perform the function of this Society, which represents the whole homœopathic interests, and stands for the best welfare of the entire homœopathic medical profession of Philadelphia and vicinity. For this reason every practitioner of homœopathy in this city, regardless of other society affiliations, ought to belong here, and throw his full influence for the improvement and upbuilding of

this organization. Of the three thousand practitioners of medicine in this city, I find 1,150 are members of the Old-school County Society and 311 are members of this Society, so that less than one-half of the physicians of this city are in touch with its county societies.

Our first duty, then, is to increase our membership. Through the recently appointed Committee on Ward Organization, Gilbert J. Palen, M. D., chairman, an attempt is to be made to enroll every homœopathic practitioner in the city. I trust he will have your aid and support.

The importance of this Society's interests deserves a large attendance at every one of its meetings. There is great enthusiasm in numbers. The deliberations of a large body of men wield a more powerful influence upon the public, attract the attention of the press, and command political influence. You members of the Philadelphia County Society can do no greater service to the homœopathic cause in this city, than by faithfully presenting yourselves at every possible meeting. It is indeed a duty you owe, and one that will not only redound to the good of the homœopathic cause in general, but it will help every one of you financially, since such enthusiastic support of the cause will tend to swell the volume of homœopathic patronage.

A large attendance is the strongest incentive to the presentation of able papers. This is the place where ought to be brought, and first presented all of the ablest, newest and best things in medicine, surgery and of all of the specialties.

Instead of having to go out and beg papers for these meetings we ought to have such a mass of real scientific material to select from that we should always have a large waiting list, and only papers of great merit be allowed to be heard. The privilege of reading a paper before this Society ought to be a boon to be sought for, and fought for. Why is this not so? Is there something wrong in our way of managing our programs? We have tried various ways. Is there still a better? You workers in the most advanced medical things, come and tell us what will be the inducements that will bring your best work and lay its results before this body.

The relation of the homœopathic pharmacist to this Society and the profession we represent is a matter of vital interest at the present time. A great advance in homœopathic pharmaceuticals has been promulgated by the adoption of an authorita-

tive standard by the American Institute of Homœopathy. This work has the endorsement of all the leaders of thought in our school, and is admitted by even the old school to be a creditable, accurate, and thoroughly scientific addition to pharmaceutical literature. Thanks to the energetic labors of our last president, Dr. Carmichael, the Homœopathic Pharmacopœia of the United States has received the official endorsement of nearly every organized homœopathic body in the United States. And yet some of the homœopathic pharmacists still refuse to conform to it and actively try to undermine its authority. Resolutions of societies are all right, but they do not change things unless the physicians insist upon their drugs being prepared in accordance with them. Let it be remembered that the pharmacist is the helper, not the master of the medical profession. It is his duty to prepare our medicines as we demand. He must not be allowed to dictate how our medicines shall be prepared. It is your fault if your pharmacist does not follow the official Pharmacopœa.

The compound tablet question is another pharmaceutical matter requiring discussion. It is a curious fact that at this time, when the trend of old school authorities is away from compound medicines, and back to the homœopathic ground of giving a single drug at a time, that the homœopathic pharmacists are placing such compounds upon the market. I am not here to assert that a mixture of drugs may not be advantageous at times when used for distinctly mechanical results. But these tablets are not so used, and while they contain remedies much used in a homœopathic way, they are not a sample of homœopathic medication. I have no right to condemn your use of them, but I do say that when you do, you are not practicing homœopathy, and have no right to so claim, and I will say farther that you belittle our cause, by so doing, in the eyes of a thoughtful laity.

It is bad enough for the physician to be tempted by these tablets, but what shall we say when the pharmacists try to create a demand for them by advertising direct to the laity. In my judgment a druggist who descends to this sort of business forfeits all rights to our patronage, and should be entirely boycotted by the medical profession. Unless a pharmacist will conform to ethical standards we are warranted in withdrawing our business from him.

We have reached a critical period in the medical world re-

garding the relationship of the different schools of medical practice. Through the influence of the American Medical Association an olive branch has been extended towards the other schools of medicine. Whatever may have been the motive prompting this official action, there is no doubt that it is advocated by many fair-minded men who have no ulterior motive, and who see the advantage of a single, united, medical profession, working for the advance of medical science.

There can be no doubt that this ought to be, and that there never should have been the necessity for the establishment of separate schools. Had there existed a proper tolerant spirit in Hahnemann's time, he would never have been forced to establish a new school in order to develop the truths of homœopathy; and it is because of this intolerance that the homœopathic school has had to fight so persistently for its medical rights down to the present day.

We are, however, living in another century and in a period when even religious tolerance is largely in evidence, and the leaders of medical thought clearly perceive the absurdity of rival bodies in medical science. Some of these men say to us, "Don't hold us responsible for the mistakes of a past century, but come in with us as a united profession and let us work together for the advancement of science."

But they have insisted that to do this we must drop the distinctive title of homœopath. Only a very few of our profession have consented to do this, and it has become evident that the great mass of the homœopathic profession will never thus tacitly desert their colors. It is evident that we cannot do so without casting a reflection on our honesty of belief and practice. To do so would fetter the further development of the law of similars, which cannot be allowed. There is also a well founded belief that freedom of speech and thought, and even social relationship, would not be what it should, were we absorbed bodily into the mass of the general profession.

There is one phase of any possible amalgamation scheme which has been lost sight of in all the discussions I have heard. There exists a very large homœopathic clientele who have become convinced by actual experience of the great value and advantage of the new school way of treating disease. Not only at the hands of homœopathic physicians, but often they have tested the effects of our drugs themselves by the aid of the family medical case. They know, by actual test, what aconite,

pulsatilla, belladonna, nux vom., bryonia, ignatia, chamomilla and many other drugs will do when applied according to homœopathic indications, and doses. These people could never be induced to return to the old way of drugging. These people will never have confidence in any man who does not at least profess a belief in the homœopathic method. These people must be cared for. No matter what we might be willing to sacrifice ourselves in the interests of medical unity, it is necessary for us to continue the use of our distinctive name, so that these people may know where to find a practitioner of homœopathy.

This large and very intelligent homœopathic following must be our saving element, when we are tempted to submerge our identity in the dominant school.

It is evident, therefore, that the amalgamation of the schools is not a near event, and though desirable in a theoretic sense, will not be consummated until one of two things takes place. Either we must demonstrate to the old school, to a compelling belief, that the principles of homœopathy are the truly scientific things we claim them to be, or that they shall prove to us that these principles are utterly false. This latter you and I know can never be done.

With the advent of liberality, and the growth of true medical tolerance I think I see the possibilities of the establishment of new medical organizations, to be made up of the representatives of all the medical sects, whose province it shall be, without in any way interfering with already established medical bodies, to form a high court in medical matters, a sort of confederation, for the determination and fostering of all that is scientific and proved worthy of survival. A forerunner of such a scheme is the proposal of the American Institute of Homœopathy to unite with a committee of the American Medical Association in drug investigations.

In this way it would seem to be possible for all to work together for the benefit of suffering mankind, and yet continue to support our own organizations. We must not, we cannot, desert the great institutions homœopathy has established in the land. They are our pride and our honor. They can never cease to exist. They must survive because founded upon a truth.

In conclusion, let me say that I am anxious to see this Society take its proper place as a power in this city, and that I will

pledge my earnest endeavor to help make it what it should become.

But let me remind you that the president cannot do it all. All your officers combined cannot do it all. This Society is and will become just what you members choose to make it. We are only your temporary representatives. *With your help* we are going to secure a larger attendance at our meetings, commensurate with our importance. *With your help*, we are going to largely increase our membership. *With your help*, we are going to secure the ablest and most valuable papers produced in this city. *With your help*, we are going to have the most spirited discussions we have ever had. *With your help*, we are going to cultivate a spirit of tolerance concerning the diversified beliefs of our members, and foster perfect freedom of speech and action. *With your help*, we are going to unite the influence of all the homœopathic interests in this body and wield a greatly increased power in all matters of medical interest in this city. *With your help*, we are going to make homœopathy stronger and increase the prestige, and with it the patronage, of every homœopathic practitioner in the City of Brotherly Love. Will you help?

ESSAYS ON USEFUL KNOWLEDGE.

(EXUDATES AND TRANSUDATES.)

BY

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THERE is no doubt, says Ramon y Capal, (*anatomia patologica general*, p 81) that the *inflammatory exudate* is constituted by the *plasma*, somewhat modified by the selective work of the vascular walls, and probably also by the pathological activity of the tissues in which it accumulates. This exudate contains albumin, fibrogen, salts, a great quantity of leucocytes and a few blood-globules. "The proportion of these factors are not always the same: in one *exudate* the blood-globules predominate (*hemorrhagic exudate*), in another the leucocytes (*purulent exudate*), in another still fibrin (*fibrinous exudate*), and we have one in which water and albumin preponderate (*serous exudate*), &c.

But *effusions* formed under the influence of an inflammatory

process are *exudates*, while, when they are the result of circulatory troubles and degenerations of their walls, they are *transudates*. *Transudates* are usually *serous*, seldom *bloody*. Their *specific weight* is very variable and dependent on the soil in which they are formed. In a descending order they could be classified as follows: *Hydrocele*, *Hydrothorax*, *Ascitis*, *Anasarca*, *Hydrocephalus*. The specific gravity of *transudates* is, as a rule, much less high than the *inflammatory exudate* of the same cavity.

By *exudate* is always understood a product of inflammation, be this *serous*, *sero-purulent*, *sanious*, or *hemorrhagic*. The *specific gravity of serous exudates* is much higher than that of a simple *transudate by stasis*. We can admit that a fluid, no matter where formed, is the result of inflammation when its *specific gravity* is above 1018, as in *pleuritis* and *peritonitis*, and the same fluid should be considered a *transudate by stasis*, when the density:

In *hydrothorax* is inferior to 1015,

In *ascitis* is inferior to 1012,

In *anasarca* is inferior to 1010,

In *hydrocephalus* is inferior to 1008. (*Spehl*).

The amount of debris, extractive matter, &c., found in *exudates* and *transudates* varies slightly, but the quantity of *albumin* they contain differs greatly. Moreover, the density of these fluids is in proportion to the amount of *albumin* they hold. One can thus calculate the approximate quantity of *albumin* by the specific gravity of the fluid, according to Reuss' formula:

$$E = \frac{3}{8} (S - 1000) - 2, 8.$$

E represents the quantity of *albumin* per 100, and S the *specific gravity*; and so we have that a specific gravity of 1018 would indicate the amount of *albumin* to be 3,95%. This rule is only applicable to *serous exudates* and never to *purulent*, *chylous*, or *highly hemorrhagic exudates*, neither to the effusions found in cases of *diabetes*, *cholemia* and *uræmia*. *Serous exudates* contain in round numbers 4—6% of *albumin*, while the *transudates*, have on an average 2%. Nevertheless, the *inflammatory exudates* may be very poor in *albumin* in pronounced *hydremia*, while the *transudates* may sometimes contain as high as 3% of *albumin*.

The *specific gravity* should not be taken until the fluid has cooled off to the temperature of the room. The density of an

exudate having still the temperature of the body has a very reduced specific gravity. An increase of 3 degrees centigrade corresponds, at least, to a degree of the areometer. The amount of *albumin* is measured by diluting a determined quantity of the exudate (10 ccm) with ten times its bulk of water. Heat to the boiling point, then add drop by drop, diluted acetic acid to obtain a slightly acid reaction. The precipitated albumin is collected on a small filter (previously dried and weighed), then it is washed with alcohol and ether, dried at 100° C. and finally weighed. The weight of the filter, of course, is deducted from the obtained result. The filtered fluid should be clear like water and deprived of all traces of albumin, as can be ascertained by the addition of a few drops of *ferrocyanide of potassium*.

Serous exudates and *transudates* have an *alkaline reaction*. By letting them stand, a more or less abundant fibrinous clot is formed. The microscope reveals leucocytes, and swelled endothelial cells, often hollowed by vacuoles. *Purulent exudates*, show under the microscope, a great number of leucocytes, which belong almost exclusively to the polynuclear class. In old pus-deposits they are generally found more or less degenerated and destroyed. Moreover, one finds a large quantity of fatty granulations, fat-body-crystals (margarin needles), and tablets of cholesterin. The *serous exudates* especially those of the *pleura* are, as a rule, free of bacteria. Here and there, we find sometimes a few streptococci or pneumococci, and if there exists a *tuberculous substratum* we can discover the *bacillus of phthisis*.

The *purulent exudates*, especially when of recent date usually contain micro-organisms. In *purulent exudation of the peritoneum*, not only *colibacilli*, *staphylococci*, and *streptococci* are found, but even *gonococci*. In *empyema of the pleural cavity*, one finds *streptococci* in half of the cases observed. The *strophococcic empyemia*, principally found in *puerperal fever*, *erysipelas*, *scarlatina*, *influenza*, and sometimes in *tuberculosis*, has a very liquid, flaky pus, and its prognosis is unfavorable. The *empyema following croupous pneumonia*, ordinarily contains the *pneumococcus* of Fraenkel, rarely the *streptococcus*. *Pneumococcal empyema* is distinguished by its thick, greenish pus. In this variety of the trouble there is a great tendency of the pus to escape through the lungs and have a favorable issue. In children *pneumococcal empyema* carries off the *streptococ-*

cal form. *Tubercular empyema* often allows us to detect the *bacilli of tuberculosis*, either alone or associated with *streptococci*. We rarely find *staphylococci*, *colibacilli* and other micro-organisms in *empyema*. A *sanius exudate* of a greenish or brownish tint with a repulsive odor, is always rich in *micro-organisms*, and among other in microbes of putrefaction. A *hemorrhagic exudate* is chiefly observed in *pleural carcinoma* and *tuberculosis*, and in the *hemorrhagic diathesis*. A *sanguineous effusion* has no particular diagnostic importance. (Seifert and Muller.)

By what has been said above about *exudations* and *transudations*, the student will find no difficulty in appreciating the various aspects of these pathological processes, which can be summed up, as follows: Due to congestion the dilated vessels allow the passage through their walls of the elements of the blood-serum. If the vessels, especially the veins leak unnaturally, or else do not suck up the fluid, the result is accumulation, either in the *subcutaneous tissue* and *lungs* or in the *serous cavities*. This leakage or failure of absorption often results from disease of the vessel and tissues, as in *inflammation*, from *disordered nerve influence*, *altered blood stasis*, or *altered blood-pressure*, e. g., obstruction of veins and lymphatics, or cardiac disease. We may add that in blood stasis, and in heart-disease, gravitation assists in the production of *dropsy*. The chief seats of election of the accumulation are the feet, especially the tissues about the *malleoli*, and the *eyelids*, but the *scrotum*, and the tissues over the sacrum are also, frequently, the seats of the collection.

There are two leading features in this malady:—(1), the *varying rapidity with which the tissues and cavities refill*; and (2) that *dropsical effusion, like hemorrhage, is merely an effect or manifestation of something else*. (Money).

We should never confound *exudates*, active process depending upon inflammatory dilatation of the vessels from active congestion, with *edemas*, which are purely *passive transudates* due to stasis, or to modifications in the composition of the blood.

We have seen how *exudates vary*, according to individual cases, according to proportion of transuded matters, and according to the nature of the initial process itself. We have likewise learned that *exudates are rich in albumin of the serum*, and that they contain, almost always, variable quantities of

fibrine, hence, *serous* and *fibrinous exudates*; and, here, we may add, that in the latter case, the *fibrine* comes from the union of the *fibrogenous substances* emerging from the vessels, with the *fibronoplastic substances* proceeding from the cells.

The analysis of this subject has also shown that the *exudates* contain, besides a variable quantity of the figured elements of the blood, red and white globules, emerged by rupture of their fences, or by *diapedesis*. The number of these *extravasated leucocytes* is much higher in *exudates*, where it reaches from 1000 to 2000 per cubic millimetre, than in *transudates* where the number never reaches above 100 to 200. We should bear in mind that a *hemorrhagic exudate* is one very rich in *red-corpuscles*. (Bard.)

Cornil and Ranvier, with the majority of authorities, include *mucous exudates* among the effects of *active inflammation*, and the same they do with *exudates composed of concrete fibrin and mucin*, united together with cellular elements (*croupal exudate* of the Germans), as well as *diphtheritic exudates* or *pseudo-exudates*. Bard, however, considers these, specific processes belonging to defined lesions, which have not the additional simple character of general inflammatory phenomena.

There are other fluids obtained by *tapping*, which should be embraced in this analysis, namely, the contents of an *echinococcus cyst*, which is usually clear, neutral or alkaline and of an *specific gravity*, running from 1008 to 1015. It contains little or no albumin, but *sodium chloride* is present in large quantities, and frequently we find *grape sugar* and *succinic acid*. The presence of the latter may be determined by agitation of the fluid with ether, after it has been boiled and made acid by the addition of *HCl*. After the evaporation of the ether, the *succinic acid* remains under the form of a crystalline cluster. The aqueous solution treated with *perchloride of iron* gives a *rust-colored precipitate*, resembling bile. Heated in a test-tube this precipitate gives off irritating vapours which provoke coughing. Under the microscope one frequently finds *scolises* and *hooklets*. In old sacs containing the dead *toemia*, as in old cysts, we find crystals of *cholesterin* and *hematoidin*. In cases of *hepatic suppuration* we often detect a large amount of *bilirubin*, pigment which gives the pus an ochre-yellow color.

The fluid of *hydronephrosis* is clear like water, of a *specific*

gravity of from 1010 to 1020. It contains *mucus*, sometimes *blood* and *pus*, a variable quantity of *albumin*, and *urinary principles*. The latter may also exist in the fluid aspirated from an *echinococcus tumor*, which, of course, renders the diagnosis of *hydronephrosis* difficult, unless *urea* and *uric acid* are found in great quantity. The amount of *urea* is determined by evaporating the fluid to the consistency of syrup, the *urea* is then extracted by alcohol, the solution is filtered, the alcohol is driven off by distillation, the thick liquid remaining is diluted with water, and some concentrated *nitric acid* (HNO_3) is added. Exposed to a low temperature the *nitrate of urea* appears under the form of hexagonal crystals. The *uric acid* is revealed by the addition of *hydrochloric acid* (HCl) to the fluid. The crystals formed are then examined by the microscope or the *murexide test* is applied, which consists in adding to the specimen 3 to 4 drops of concentrated *nitric acid* in a porcelain dish and the contents evaporated to dryness. If *uric acid* be present an orange-yellow color is produced, which will change to a purple-red by the addition of ammonia.

In the fluid of *hydronephrosis* we sometimes find pyriform epithelial cells of the calyx and cylindrical casts; on the other hand, the fluid of an *echinococcus tumour* is positively determined when the hooklets on the cyst-wall are found; the fluid of *hydronephrosis* again, can be decided by the intermittent filling and emptying of the fluctuating sac and by the presence of *urea*.

The fluid obtained from an *ovarian cyst* by aspiration is most frequently *mucous*, *yellow in color*, and *easily flowing*. Sometimes it is liquid, at other times colloid and brown. The *specific gravity* runs from 1003 to 1015, but usually it is found to be between 1010 and 1024. The fluid, as a rule, contains *albumin*, as well as *pseudo-mucin* or *mucoïde*, which give the consistency of mucus to this product. Contrary to what happens with *mucin*, *pseudo-mucin* is not precipitated by *acetic acid*, neither it is so by *heating* or *nitric acid*, but *alcohol* readily cast it down in flakes. By heating it with mineral acids a reductive product is formed by single division.

The test for *pseudo-mucin* consists in getting rid of the *albumin* by heating and acetic acid, then filter the fluid, and if it contains *mucin* will appear opalescent and easily flowing. It precipitates in white flakes by the addition of *alcohol in excess*. The flakes are pressed out, then heated with a 5% solution of

HCl, until a brownish coloration is produced. After cooling, the liquid is made alkaline by the addition of *soda-lye*, then put a few drops of a *sulphate of copper solution* and heat it. If *pseudo-mucin* is present, a *yellow oxydul of copper* is produced.

The diagnostic significancy of *pseudo-mucin* is not important, for two reasons: One is because it is not demonstrable in all *ovarian cysts*, the other because it is also found in rare cases of *free ascitis*. Under the microscope we find sometimes *cylindrical or vibratile epithelial cells*, sometimes also *colloid granulations*.

Another very important fluid obtained by *tapping* is the *cerebro-spinal*. In *purulent and tubercular meningitis*, the fluid is often cloudy and purulent, and a flaky deposit is formed. In other cases it is clear. In *simple meningitis* we have no cloudy sediment at all. The *specific gravity* and the amount of *albumin* in the flowing fluid, have little diagnostic value. However, a *density* above 1008 and a quantity of *albumin* above $\frac{1}{4}\%$, speak in favor of inflammation (*meningitis*), though lower degrees, of course, do not exclude it. The *bacteriological examination* is more important. In *tubercular meningitis*, the bacilli of tuberculosis are found in the majority of cases. In *purulent cerebro-spinal-meningitis*, either the *pneumococcus* of Fränkel, or the *meningococcus*, are present. For bacteriological examination the small *flakes* are preferred, which in the *inflammatory exudates* are frequently deposited after a very short time. Apart from *meningitis*, there is increase in the quantity and pressure of the *spinal fluid*, in *tumors*, *hemorrhages* and some other *brain diseases*. This is also the case in *grave chlorosis*. *Cerebral hemorrhage* or *hemorrhage of the spinal medulla* give a fluid of red color.

The *tapping of the spinal membranes* to obtain *cerebro-spinal fluid* for examination is, according to Quincke, made as follows:—The patient is placed on either side and after careful disinfection of the parts, a long, slender needle, sterilized by heat, is slowly introduced into the spinal canal (*dural sac*). The place for the puncture is the space comprised between the 3d and 4th lumbar vertebra. The fourth lumbar vertebra is easily recognized by its situation on the line which brings together the two iliac crests. The needle is introduced into the middle line, directly forward, or somewhat obliquely upwards. The needle should be attached to a rubber and glass tube. By

holding the glass tube vertically, one can measure by means of a metric tape placed at the level of the puncture, the height of pressure existing in the spinal cord. If 20 ccm or more of the fluid flows rapidly at a pressure of 200 mm or more, we can conclude there is a pathological process going on, either in the cerebral cavity or in the spinal cord. As a rule 40 ccm or more are allowed to flow at each sitting, and when the pressure has gone down to 60-80 mm, the operation should be stopped.

NEURITIS.

BY

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AFTER a service as medical director in a sanitarium where mud-baths were given, over a period of five years, the writer wishes to give the profession his conclusions regarding neuritis, its cause and the treatment. Without the least exaggeration it is safe to say that there were times when we had thirty cases of sciatic neuritis and as many as ten to twenty of the various other types under treatment at the same time. The conclusions are that neuritis is very common and is frequently diagnosed "rheumatism." Furthermore, we found a toxic cause in most cases not traumatic, *i. e.*, auto-intoxication, diabetes, alcohol, lead, arsenic and syphilis. Poverty of the nerves from any cause apparently predisposed many. The exciting cause was repeatedly: chill, the morning cold bath too long prolonged, or work in cold storage, ice plants, near a damp wall or floor or in a basement. As in the "rheumatic diseases"; arthritis, myalgia, auto-intoxication and rheumatic iritis, we found an abundance of indican, uric-acid, oxalates, phosphates, urates, cystin and purin bodies in the urine, either being thrown off in large quantities or evidence of being retained with aggravated results or eliminated with amelioration. In diabetes it occurs from absorption because of inefficient kidney elimination brought about by the nephritis so often accompanying from dealing with urine of a high specific gravity and sugar irritation.

The general indications for treatment seemed to be rest of the inflamed nerve and free elimination by every means; the skin, kidneys and bowels. Diet is rather important, it must be

for a long period of time, dealing with the habits of the patient and not at the time, reduced in a way not to bring on weakness. At any time diet should be (it seems to the writer) the selection of the proper nutritious food in proper quantities and not the denial of foods.

Rest without massage, in the first stages is of primary importance. Next we would promote elimination by heat.

Heat and relaxation of the part involved for long periods each day. This may be accomplished by hot earth poultices and water baths. Electricity cautiously given by an expert for short periods is of benefit, though more often aggravates by stimulation as does massage when improperly applied. The majority of these sufferers have already given the nerves the stimulation (which relieves for a time by the part being made "numb") to develop pronounced inflammation.

Baths do their part by *elimination*, equalizing the circulation, relaxation or stimulation as desired, and at resorts by placing the patient where he will make a business of getting well. The best result will come from long baths at an even temperature. Too hot baths cause a marked aggravation by distributing through an excited circulation these xanthin and other toxins; extra hot baths cause fainting and general aggravation, at times driving the patient to bed. However, the bed is the place for a marked case of sciatic neuritis as well as a crutch to the less painful types. Patients will want the temperature warmer than it should be, in the hope of hastening matters. A fever of 102 is a contra-indication for baths and other means should be employed during this period. It is well to use a sphygmomanometer and under no condition admit of hot baths in those who have pronounced arterio sclerosis. It is most important that the use of baths should be associated with the drinking of pure alkaline waters preferably hot. Wind is an enemy of neuritis and if possible it is well to consider this in the selection of a climate for one who can adapt himself. Stretching the nerve has its advocates in severe cases but the percentage of cures is small. Salt solution into the nerve sheath in sciatic neuritis is frequently followed by marked improvement. The indicated drug may be included in every case. It is best to use combined methods and then we find some two per cent. of cases taxing every known method with absolutely no result.

EDITORIAL

THE SCRANTON MEETING.

THE success of the Scranton meeting of the Homœopathic Medical Society of the State of Pennsylvania was not accidental—it was the result of hard and conscientious work. For several months Dr. D. P. Maddux, the retiring president of the Society, had been exerting every effort to insure a successful meeting. There have probably been very few meetings of the Society for which a better scientific program was prepared. There were in all seventy papers on the list, and a far larger percentage than usual of those on the program were presented. The social features of the meeting far surpassed anything of recent years. Dr. H. B. Ware, chairman of the Reception and Entertainment Committee, seemed determined that every visiting member should have a royal good time. The courtesy and hospitality extended on all sides as the result of the work of Dr. Ware and his committee contributed greatly to the enjoyment of the meeting and well merited the words of appreciation that were heard on all sides. The Press Committee, of which Dr. H. L. Vail was chairman, the Hotel Committee, in charge of Dr. Theo. Sureth, and the Exhibiting Committee, in charge of Dr. R. V. White, all did excellent work. In fact the entire body of local physicians spared no pains in providing for the comfort and entertainment of their guests and they one and all deserve the warmest thanks for their efforts to make the meeting a success.

The scientific work of the Society occupied, as usual, the greater portion of the time. The papers presented were of more than usual interest, reflecting great credit on their authors. Probably the most important paper to homœopathic physicians as a body was that read by Dr. J. M. McClelland, of Pittsburgh. Dr. McClelland's paper dealt with the necessity of preserving the integrity of the homœopathic organizations if we are to advance the homœopathic system of medicine. There are many physicians who pretend to believe that the principles of homœopathy would be conserved as readily by amal-

gamation with the "Old School" as they are at the present time. Dr. McClelland pointed out the fallacy of this idea, and demonstrated conclusively that if homœopathy is to be advanced it must be through the efforts of its friends and not of its enemies.

The "Old School" as a body have largely abandoned their belief in the efficacy of medicinal treatment. Their advanced thinkers particularly have denounced polypharmacy as a relic of medical barbarism, and account for the curative effect of most prescriptions on a psychological basis. The more honest among those who hold to this view are rapidly giving up the administration of drugs entirely and administer their psycho-therapeutic measures direct without the medium of drugs. It is, of course, true that the rank and file of "Old School" practitioners continue to have more or less faith in the medicines prescribed; but if we are to accept the opinions of pathologists and clinicians of widespread experience, this faith, with the exception of a few drugs, is based more on blind confidence in medical tradition than in any actual virtue in the compounds prescribed.

It would seem that the conclusions reached by these gentlemen are very similar to those reached by Hahnemann more than one hundred years ago. He also passed through the stage of compound prescribing, and proved to his own satisfaction the uselessness of such treatment. It was while seeking for some substitute for former methods that he discovered the principle of *similia*. We to-day do not wonder that he refused to return to the crude methods of his medical contemporaries after once having witnessed the results of the homœopathic method of treatment; and yet it was because he did thus refuse to use or to endorse the crude polypharmacy of his day that he was driven out by the dominant school of medicine and forced to found a school devoted to the development and study of the principles of homœopathy. There are few broad-minded men in the "Old School" to-day who fail to recognize the injustice that was done Hahnemann and his followers. They realize that he was entirely correct in his attitude toward the prevalent therapeutic methods of the latter part of the 18th century, but they are not willing to admit the correctness of his views regarding the principle of *similia*. Strange as it may seem, though driven about on a sea of therapeutic doubt and uncertainty, deprived by modern investigation of faith in the traditional remedies of their school, they yet refuse to seriously in-

investigate the methods of homœopathy. It is true that they have made use of the application of the principles of homœopathy in the prevention of small-pox, in the treatment of tuberculosis and other diseases; but they fail either to give credit to Hahnemann or to acknowledge the truth of the therapeutic principle that underlies these methods.

It is, therefore, necessary that the homœopathic school, as an organized body, with its hospitals, its own colleges, medical societies and journals, should continue to exist in order that homœopathy may be properly developed and its value established in the minds of all fair-minded inquirers. The published remarks of "Old School" authorities, the bitter and hostile attitude of "Old School" organizations, as shown by the recent legislative fight at Harrisburg, all bear evidence of the fact that, however they may talk, the "Old School" as an organization is as bitterly opposed to the interest of homœopathy and of homœopathic practitioners as ever before.

The work of the Bureau of Materia Medica deserves special mention. Instead of a number of papers on different subjects, the chairman, Dr. Carmichael, conceived the plan of arranging a series of articles on one subject. In this instance he selected the action of a series of remedies on the mucous membranes. Partially because of the advantages of the plan and partially because of the superior character of the papers presented, the work of this bureau attracted more interest and favorable comment than it has for several years.

The office of president of the State Society during the past few years has been one requiring a great deal of time and work. It was, therefore, fitting that in the election of its president this year the Society should honor a man who has been noted for his untiring interest and zeal in the cause of homœopathy, Dr. H. F. Schantz, of Reading. It is worthy of note that there was not a dissenting voice against the election of Dr. Schantz to this honorable and responsible position. Many years of active service in the State Society have made him familiar with every detail of the work that is before him, and this experience combined with his energy and enthusiasm, we confidently believe, will enable him to accomplish much for the Society and for homœopathy in this State. That he will do his share faithfully and conscientiously we well know, it only remains for every member to give him his earnest and willing

support when called upon to serve on a committee, bureau or in any other capacity.

The coming year should be one of active organization and propagandism on the part of the Society. The faltering should be encouraged, the indifferent aroused and the lines of organization strengthened in every county in the State. There is plenty of work to be done. Don't leave it to some one else, but go right ahead and do your share and encourage others to do theirs. The only enemy that can seriously injure the cause of homœopathy is indifference.

AMERICAN MEDICINE FROM THE STANDPOINT OF AN OUTSIDER.

It is both interesting and instructive for us, as physicians, to occasionally see ourselves as others see us. Dr. Andrea Majocchi, of Milan, who recently visited the United States for the purpose of studying American surgical methods has written an interesting account of his impressions in the *Corriere Sanitario*.

Speaking of the American surgeon, Dr. Majocchi considers his weakest side to be his deficiency in clinical diagnosis. He states that he has never seen so many exploratory laparotomies performed as in the United States. The operator does not exhaust all of the diagnostic methods at his disposal, but is prone to proceed at once to opening the abdomen. The operative skill of our surgeons he considers to be extraordinary and he comments favorably on their technique and ingenuity.

His comment on the impatience of the average American is very interesting and can be assented to by most medical men. Dr. Majocchi feels that the impatience of our people accounts for a great deal of the haste in resorting to operative procedures. The patient is so impatient to get well quickly that he is willing to submit to an operation rather than undergo a slower and more tedious treatment.

The methods adopted by the American medical schools, he believes, tend to develop the practical side of a physician's work, but have a damaging effect on scientific culture. Four years are too little to develop the mind sufficiently to enable the individual to enter upon a career of scientific study and research.

The American hospitals, he says, are magnificent buildings, but are not economically managed. Six patients can be maintained in the Ospedale Maggiore of Milan at the cost that is

required to maintain one patient at the Mount Sinai Hospital (\$2.38 daily). When we consider the relatively lower cost of living in Italy, however, as compared with New York, the difference in cost of daily maintenance is at least partially accounted for.

In closing his remarks the writer states: "My object has been to draw your attention to a country, which although still youthful, still full of defects, contains, however, new energies and stores of boldness and activity."

LARYNGEAL COMPLICATIONS IN TYPHOID.—Laryngeal lesions in typhoid are always difficult to handle. If, occasionally, there is noted only mild inflammation, the affection too often presents itself in the necrotic, ulcerating form. The characteristic "laryngo-typhoid." In the fulminant type, the symptoms appear even in the second or third weeks of the disease; in the slowly developing loitering form very often during the convalescent period.

At first there is a slight "veiling," so to speak, of the voice; respiration is disturbed, and particularly during the night there develops a real dyspnea. The cough soon becomes croupy and expectoration shows very quickly a mixture of blood. If there be necrosis of tissues, the expired air is fetid in odor.

Prognosis is always bad, for the complication appears in a stadium where the resistive powers of the patient are minimal, and if the patient survive the laryngeal lesion, he is likely to succumb to the toxemia, already generated by it.

Prophylaxis consists of antiseptic care of mouth and throat. If laryngeal symptoms have already appeared—hot applications. Tracheotomy affords most relief to the patient.—Dr. M. Leconte, *Gazette des Hopitaux*, Nos. 53-56.

THE VALUE OF MILK SUGAR IN INFANT FEEDING.—Weigert, in the *Berliner klin. Wochenschrift*, 1909, No. 21, has the following conclusions to offer, based upon observations of a large polyclinical clientele, observations, however, which need clinical verification:

The addition of milk sugar to dilutions of cow's milk with water has no effect upon the weight curve of the child.

In children who are on milk and water and show a tendency to constipation and finally to saponaceous stools, the use of milk sugar, as a rule, has no effect upon this fecal anomaly.

In children with dyspeptic stools, the milk sugar added to various food mixtures, hinders a return to normal intestinal tract and stool, without offering any advantage by way of compensation.

GLEANINGS

FORMALDEHYDE: TUBERCULOUS SPUTUM.—It has been recently asserted by Dr. Roepke that tubercle bacilli (in sputum smears or in sputum on handkerchiefs, etc.,) are killed after 24 hours' action of a 2% lysoform solution. The author has repeated Dr. Roepke's experiments, with many variations, and has found that lysoform, used as described, is incapable of destroying the vitality of these bacilli. Since the active principle in lysoform, is formaldehyde, widely known as a disinfectant of sick rooms, covers, carpets, beds, etc., experiments were made with the latter, and it was shown that tubercle bacilli, exposed sufficiently long to powerful vapors of formaldehyde in a closed room, were not killed, and, as animal experiments demonstrated, were not even injured in the matter of virulence. For the naturally resistant tubercle bacillus, the most delicate capsule sufficed to protect it from any action of formalin. Hence the formalin disinfection of rooms occupied by consumptives is merely a pseudo-disinfection, which under certain conditions may be worse than no disinfection, for, whilst the accompanying micro-organism in the sputum are killed, the tubercle bacilli, in pure culture, so to speak, remain. The author concludes: Formaldehyde or any of its derivatives (lysoform, formalin, autan) is not able to kill these bacilli in sputum. In the disinfection of houses occupied by consumptives a vigorous sweeping and scouring should, at least, precede a formaldehyde disinfection. For actual disinfection, we still have, as before, sublimate, cresol-soap or lysol.—Dr. A. Kaiser, *Deutsche med. Wochenschrift*, 1909, No. 16.

UNDER NOURISHMENT AS A CURATIVE FACTOR.—By under nourishment is meant a diminution of food for therapeutic purposes below the minimum necessary for life. It may be total, i. e. albumin, carbohydrates and fat; or partial, excluding one or two of these groups. In such therapy the decreased ingestion of fluids also finds place. By under nourishment is attained: (1) Regulation of the body chemistry by diminution of metabolism (organisms which before were unable to assimilate properly the ingested material, regain—by being spared useless labor—the ability to assimilate); (2) Circulatory regulation (reduction of water and food in cardiac cases; relief of hyperemic areas and improved circulation in anemic regions); (3) Relief of the nervous system by lessening of neural irritation and by opening up avenues of stimulation; (4) Relief of the digestive tract and the excretory organs. Venous hyperemias, such as are found in gastro-intestinal trouble, disappear, whilst the organism to maintain its functional energies, calls upon all the reserves, and hence withdraws superfluous blood from the general circulation; (5) Suppression of bacterial fermentations which lead to auto-intoxication. The two most radical under nourishment schemes are: Absolute fasting, where some non-nutritious liquid (peppermint or chamomile tea) is allowed, up to 1

liter a day, and the Schrothsche plan, where the diet is albumin in minimum quantity, with a much more rigorous abstinence from liquids. Other, but less rapid methods are: The fruit dietary, and a combination milk-fruit schedule.—Dr. B. R. Martin, *Physikalisch-diasetische Heilmethoden*, 1909, H. 3 and 4.

EXPERIMENTAL RESEARCHES IN CANCER AND THE INFECTION THEORY.—Prof. Lewin (Berlin) in the *Deutsche med. Wochenschrift*, 1909, No. 16, believes that the development of cancer is dependent upon parasitic influences, and calls attention to the epidemics of cancer; to the repeated occurrence of malignant tumors in isolated areas, in cancer houses, in families; to similar observations in animals; to endemics and epidemics of malignant new growths in cattle, rats, mice, etc. Morean states that he has been able to develop an endemic of mouse cancer by placing bugs from a cage holding cancer mice into a cage of healthy mice. Thorel reports an interesting cancer epidemic of mice and also believes that "some sort of infectious noxæ" in the cages affected, was responsible for multiplication of the growths. Further proof is afforded in the observations on animals where after cancer inoculations, malignant tumors develop, not from a transplantation of cells, but exhibiting new tumors different from that of the animal "host." Thus, Ehrlich-Apolant observed the transformation of a frequently re-inoculated carcinoma into a sarcoma; other investigators (including the author) have verified this, and the results of their experiments on animals have been confirmed by observations on man (Schmorls, two cases). There can be no doubt, in the author's opinion, that under the influence of malignant epithelial neoplasms, connective tissue elements may be led to sarcomatous development; and also that because of the action of adjacent tumor cells, malignant epithelial growths may be generated (observation of the author and others). Thus, the experimental investigation of carcinoma has taught that by the inoculation of tissues from malignant new growths, the tissues of the inoculated animal itself can be led to the production *per se* of malignant growths. Prof. Lewin does not believe that chemical influences emanating from malignant cells elucidate sufficiently the phenomenon, and he would much rather accept the theory that the action of recognized parasites is evident here, Lubarsch also arriving at the same conclusion. The same parasite, according to the tissue where it locates, may evolve either an epithelial or connective tissue neoplasm, both malignant, and it were even comprehensible that a parasite which, in certain species of animals or in man, causes a genuine malignant growth, in some other animal organism developed merely a granulation tumor. The author concludes: All of our experiments bespeak the etiology of malignant growths as not unitary in nature, as not an entity. There are chemical irritants which may rouse certain definite cells of the normal organism to extraordinary proliferation, e. g., in pregnancy, the enormous production of cells in the mammæ; the growth of antlers in stag and doe during the breeding season; the histologic picture of true tumors with infiltration growth and with metastasis in leukemia, and particularly in lymph-sarcomata. With being compelled to accept a specific parasite as etiologic, it is permissible to admit the co-action of parasites in the development of all sorts of malignant tu-

mors and thus explain the fact that various cells of the organism by reason of irritant processes of infectious-toxic nature, may be led to malignant proliferation.

INVESTIGATION OF THE TOXICITY OF BLOOD SERUM IN ECLAMPSIA.—Experiments were made with rats by injecting intraperitoneally some previously warmed serum of the eclamptic patient. Of 19 patients investigated, 13 were indubitably more toxic than normal. The lethal quantity of active serum in eclampsia lies between 2%—10% of the body weight. After standing for a while, the serum is clearly less active. However, in our present state of knowledge, it seems admissible to speak of an increase in the normal toxic components of serum; the demonstrable toxic substances present in the serum not being considered as pathognomic of eclampsia.

PROPHYLAXIN IN ECLAMPSIA.—In the *Monatsschrift f. Geburtsh. u. Gynakol.* May, 1909, Dr. Stroganoff gives his treatment of eclampsia, consisting in the alternate use of chloral hydrate and morphine in dosage sufficient to hinder the spasms (morphine 0.015, chloral hydrate 2.0 in alternation every three hours). Further therapeutic measures are: The avoidance of all irritation or stimuli (isolation of the patient; all examinations and obstetric procedures to be done in narcosis). Delivery is to be accomplished as soon as possible without too strenuous measures, or when, in spite of therapy, the condition becomes worse. This method gave brilliant results in 300 cases, both for the mother (mortality 6.9%) and child (21.6%). Its application is easy for every practising physician, and equally efficient in eclampsia sub gravitate, sub et post partum. The opinion that the use of narcotics in eclampsia is dangerous is entirely baseless, and, according to the author, the fashionable cesarian section per vaginam as well as nephrotomy or renal decapsulization or even the combination of these three surgical procedures in the treatment of eclampsia is a species of surgical debauch.

THYROIDIN IN DISEASES OF THE EYE.—In the *Klin. Monatsch. f. Augenheilk.* Baillage, Dr. H. Aller reports the use of thyroidin in 19 cases of uveal disease with opacity of the vitreous. In one-fourth of his cases, there were no results; in all the others there was a subjective feeling of amelioration, of clearer vision, and in about one-half of the total number an actual increase in the sharpness of vision was demonstrated. Thyroid treatment must be carefully conducted by the physician, beginning with one tabloid, 0.1 or 0.3. Injury to the body in general or to the eye in particular, has never been observed by the author.

PALLIATIVE TREPHINING FOR CHOKED DISC.—von Hippel was led to a careful investigation into the literature of trephining for choked disc by the loss of a case from infection following the decompression operation. He comes to the conclusion that in the light of our present knowledge, if the early decompression operation be adopted in order to prevent blindness, it would be an advance in progress. The danger from the operation can be diminished by using chloroform instead of ether: performing the operation

in two steps; first removing the bone, laying bare the dura; then, if necessary, a few days later to open the dura.

An ophthalmoscopic examination to be made between to determine the necessity for the latter procedure. Even in choked disc, due to gummata, he advises the operation, as the action of iodide of potassium is often not sufficiently quick to prevent blindness.—Dr. von Hippel, *Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

VESICANTS IN OPHTHALMOLOGY.—The author advocates the use of emplastrum cantharidum perpetuum in severe cases of phlyctenular conjunctivitis and keratitis. He spreads it on a piece of linen about the size of a half dollar and places it just in front of the ear and under the border of the hair of the scalp. It is left in position from twenty-four hours to four or five days, when it is removed and zinc paste applied. The plaster blisters painlessly, producing with only a slight drawing sensation, a serous blister in about five hours, which usually bursts of itself. Sometimes on account of a discoloration left by the blister and slowness to disappear, the paste is applied behind the ear or on the temple, after first shaving the hair. He claims remarkable results from plaster in these cases; but strange to say, it is absolutely inert in inflammations of the cornea or conjunctiva of character other than scrofulous. The other usual treatments should be used.—Dr. Franz Weitlauen, *Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

THE VALUE OF IRIDECTOMY IN GLAUCOMA SIMPLEX.—In the discussion of V. Hippel's paper on the value of iridectomy in glaucoma simplex, Walting reported operation in ten eyes, eight with success and two with failure. He believed in early operation, but warned against cases with decided contraction of the visual field. Leopold advised earliest possible performance of iridectomy, even in advanced cases with contraction of the field, although under these circumstances a bad result occasionally may be seen. If glaucomatous symptoms persist, sclerotomy and miotics may act favorably, though only rarely can he check the advance of the glaucoma. Segelken reported thirty eyes, with twenty-two iridectomy operations. In one-fourth of the cases vision was preserved and bettered. No immediate loss of vision was observed, and none was seen in any of the patients who could be followed. He therefore advised early iridectomy, as sclerotomy was not reliable, and thought miotics should be subsequently used.—*Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

COMMON MISTAKES IN OPHTHALMIC PRACTICE.—This unusual but very practical article recounts in detail some of the most prevalent errors the author has seen committed, beginning with the prescription of minus lenses in low degrees of hypermetropia with cramp of the ciliary muscle.

In the treatment of squint, it is a mistake to operate during the early stages. Glasses should correct every case in the early stages. Slight errors of refraction more frequently cause headache than the higher degrees.

Foreign bodies under the lids, especially in the cul-de-sac, are easily overlooked, and it is good practice to run a swab through the upper folds if there is any possibility of an oversight. Certain "foreign body" cases may simulate neuralgia. Hypopyon-ulcer is often treated with insufficient care and promptness. Every case is serious, no matter how small the ulcer. Low grade plastic irido-cyclitis is overlooked. Pain and redness may be slight and the visual disturbances are the only symptoms which attract the patient's attention, while the cases are always intractable and at the same time serious. He mentions the use of atropine in mistaking glaucoma for iritis. The chief danger is in cases of chronic glaucoma.—Dr. Arthur C. Roper, *Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

THE TREATMENT OF PLACENTA PRAEVIA.—This subject is receiving general attention abroad, particularly in relation to the cæsarian section in such cases. Pfannensteil says the published reports of cases treated by means of this operation seem to point to better results than formerly obtained. But the question is whether the older methods of treatment should be abandoned in favor of this operation, and the author denies that they should. He says placenta previa will always remain a condition requiring treatment on the part of the physician first called; the treatment must be instantly applied and very often there is not time to send such a patient where this operation can be successfully carried out. The tampon is a very dangerous temporary measure, and should only be used under unavoidable conditions. Combined version according to Braxton Hicks, has also fallen under criticism, and the best results show a mortality of 9.64%, and an infant mortality of 81%, after deducting cases of immature children, of 62%. Treatment with the metreurynter gives much better results. Thus Kustner's mortality is only 5%, with an infant mortality with mature children of 20 to 25%. Sometimes simply rupturing the membranes is sufficient to turn the case favorably. The technique of using the metreurynter is as follows: The rubber balloon is best introduced through a speculum after bringing down the cervix, and after having somewhat dilated the os, if necessary. The use of a somewhat curved dressing forceps will facilitate the introduction. We should try to rupture the membranes and introduce the metreurynter within the membranes. If this cannot be done, it may be inserted beneath the membranes, but it is necessary to have ruptured the latter. For this purpose the forceps above mentioned may be used, and the thinnest part of the membranes selected for the perforation. The rubber balloon is then to be filled with about 500 c.c. of sterilized salt water solution. He advises attaching a weight to the lower end for the purpose of making traction. The instrument should not be removed from the uterus for the purpose of performing version or using any other method of delivery, but should be allowed to remain until spontaneously expelled, and then labor can be terminated at once.—*Monatsschr. f. G. u. G.* Vol. 29, 265.

THEODORE J. GRAMM, M. D.

REPEATED TUBAL PREGNANCY.—Puppel (Mainz) in reporting two carefully studied cases says that at every operation for tubal pregnancy the condition of the other tube should be examined, and the patient consent-

ing, should be removed when (a) there are perimetritic adhesions found upon the uninvolved tube; (b) when a large hematocele has formed in the pelvis; and (c) when drainage of the pelvis is necessary. The author prefers the abdominal route for operating, believing that more reliable information of the condition of the pelvic organs can thus be obtained.—*Monatsschr. f. G. u. G.* Vol. 29, 352.

THEODORE J. GRAMM, M. D.

THE TREATMENT OF FIBROID TUMORS.—Torkel reports the experience had at Biedmer's clinic in Breslau, in the care of over three hundred cases. He says they do not forthwith operate every patient who has a myoma, neither do they use palliative treatment too long. Some cases are curetted. They do not use internal medication. If operation is necessary the cases are individualized. Except in special cases, conservative methods are only of use when the retention of the uterus is for some reason desirable for the patient. Stereotyped treatment as regards vaginal or abdominal operation is not possible for the so-called boundary line cases. Of radical abdominal operations the supra-vaginal amputation is preferable to total extirpation.—*Monatssch. f. G. u. G.* Vol. 29, 338.

THEODORE J. GRAMM, M. D.

THE UTERINE TAMPON IN POSTPARTUM HEMORRHAGE.—Crowe (Dallas, Texas), says the uterine tampon still has a place in the treatment of this accident, in spite of the tendency on the part of some teachers to abandon its use. He insists that we should remember the conditions present and that true post-partum hemorrhage is due to relaxation of the uterine muscle. Therefore when the uterus may be felt as a hard globular mass through the abdominal walls between the umbilicus and symphysis pubis, and profuse hemorrhage is present, the bleeding comes from some other part of the genital tract than from the uterus, that is from the torn cervix or perineum or from lacerations about the vulva. He recites the case of a woman who had severe abdominal pain in the right side one week prior to delivery, and with it a show of blood. The delivery was precipitate, all the products of conception coming away at one severe expulsive effort. Later when the placenta was examined, a large clot was found to have formed on the maternal side of the placenta, with loosening of the placenta at its middle, and this, of course, explained the show of blood above mentioned, and also was the cause of muscular relaxation at the point of placental attachment. The case was treated by inserting the hand into the vagina and while closing the cervix, also flexing the uterus upon itself anteriorly. This procedure was ineffective, and after assistance was obtained, the uterus was firmly packed with sterilized gauze bandage. Upon the abdominal walls, above and on each side of the uterus, folded towels were placed and retained in position by a tight abdominal bandage. Antiseptic precautions are of course requisite in this treatment.—*Amer. Jr. Obs.* Vol. 60, 88.

THEODORE J. GRAMM, M. D.

VOLVULUS OF THE SIGMOID FLEXURE.—Lampe says in the development of gynecology it has happened that the organs of the entire abdomen have come within its domain. Thus ileus is encountered by the gynecologist,

both as a post-operative condition, in consequence of torsion of the pedicle of tumors and from inflammatory processes in the pelvis. In speaking of volvulus of the sigmoid, he points out that this accident is prone to occur when the sigmoid is unusually long and has a narrow attachment, and when chronic constipation exists. The two loops of sigmoid extending upward and becoming filled, the organ is twisted upon itself and obstruction occurs, particularly when favored by the results of some traumatism. Gonorrhœal and tubercular pyosalpinx do not so often induce volvulus, as they cause obstruction by compression. Occasionally a uterine fibroid may induce obstruction. Volvulus has been more frequently observed during pregnancy. Even here constipation and traumatism attend. The anatomical picture is quite typical. The involved portion of the abdominal cavity is occupied by an enormously distended loop of sigmoid, the small intestines are usually collapsed, as also the large intestines, with the exception of the colon descendens, which is somewhat distended. The sigmoid fills the middle and left side of the abdomen and protrudes itself high up under the ribs. The point of torsion is constantly at the attachment of the flexure. Even with complete torsion, the mesenteric vessels are usually not closed, so that there are no changes in the intestinal wall aside from the distension. If the mesenteric vessels become strangulated, the loop is blue red, the mucous membrane ulcerated and perforation threatens.

Within the peritoneal cavity a hemorrhagic and stinking exudate is formed. The symptoms are usually typical, but we must remember that they are usually referred to the upper abdomen, although the lesion is in the pelvis. The upper abdomen is distended, especially at the left side, where the upper part of the distended sigmoid lies immediately behind the abdominal walls. In rapid cases peristaltic motion soon ceases; occasionally then stool and flatus may be passed. Some cases begin with sudden collapse and vomiting. There is, of course, obstipation and absence of fetus, and the vomiting may cease. The general condition may sometimes remain remarkably good in spite of the pronounced tympany. On the third or fourth day vomiting returns and the patient dies from inanition and auto-intoxication. If the nutrition of the bowel remains good the case may be protracted for a week; in other instances the case terminates from secondary peritonitis within three days; sometimes the patient dies within 24 hours. In gynecological practice these cases are more difficult to recognize because of the associated complications. The prognosis is not very bright. In 8 cases during pregnancy, two were not operated, one because of a diagnosis of eclampsia, and in the other there was diffuse peritonitis. Of six cases operated, four died. The operation can only effect a detortion of the bowel. If pregnancy exists, it is best not to first attempt to empty the uterus, but to operate in spite of the existing pregnancy—*Monatsschr. f. G. u. G.* Vol. 29, 405.

THEODORE J. GRAMM, M. D.

LIGATION OR EXCISION OF THROMBOSED VEINS IN THE TREATMENT OF PUERPERAL PYEMIA.—The conclusions reached by Williams (Baltimore), from a consideration of this subject are as follows: As the average mortality of puerperal pyemia is in the neighborhood of 66.2-3 per cent., any operation which offers a chance of reducing it should be welcomed. This paper is based upon the study of fifty-six cases of thrombophlebitis treated

by excision or ligation of one or more pelvic veins. Fifteen operations by the extraperitoneal and forty-one by the transperitoneal method gave a gross mortality of 80 per cent. and 43.9 per cent. respectively. Not any appreciable difference from that following expectant treatment. Many of the reported cases were not susceptible of cure, and the technique was often faulty. Upon deducting such cases we obtain a corrected mortality of 40 per cent. and 21.4 per cent. for the two types of operation. In five personal cases the gross mortality was 20 per cent. When the thrombosis is limited to the spermatic veins the mortality should not exceed 10 per cent., provided the operation is performed early, as compared with 25 per cent. when other vessels are involved. Operation should be undertaken as soon as a positive diagnosis can be made, which is assured whenever a worm-like mass can be palpated at the outer portion of the broad ligament in patients suffering from chills and a hectic temperature. Excision of the thrombosed vessels is rarely necessary and should be substituted for ligation only when the vessel appears likely to rupture or is surrounded by pylephlebotic inflammation. The transperitoneal is preferable to the extraperitoneal route. It is technically easier, affords a much more extensive view of the vessels, and with proper precautions scarcely increases the likelihood of peritoneal infection.

The vaginal route suggested by Taylor, Latzo, and others is applicable only to a small class of cases in which the thrombotic process is limited to the vessels of the broad ligament. As such a diagnosis cannot be made, he considers that laparotomy should be done in all cases in which interference appears indicated.—*Amer. Jr. Obs.* Vol. 59, 758.

THEODORE J. GRAMM, M. D.

THE NEWBORN.—Because of the small amount of attention paid the infant at birth it seems to belong neither to the obstetrician, the general practitioner or the pediatricist, but rather to the nurse or the first unemployed person who happens to be in the room, to whose tender mercies the child is given as soon as it has demonstrated its ability to breathe.

The principal consideration immediately after the birth of the head is to thoroughly cleanse the mouth of mucus to prevent its aspiration into the lungs, and to wipe the eyes preparatory to the insertion of the silver solution into them immediately after the completion of the third stage. I would plead for universal use of the Crede treatment of the eyes, or, if preferred, the use of one of the newer silver salts. Personally, I much prefer the 2 per cent. solution of nitrate of silver. A drop of this solution is placed in each eye, followed after a closure of the lids by a few drops of the normal salt solution.

My contention is for the universal use of one of the silver salts, which of themselves are entirely harmless, and will effectually prevent ophthalmia neonatorum, one of the most severe complications known to obstetrics.

The question of nourishment of the body is the most important to be solved in connection with the care of the newborn. During the first three days it is a constant fight with grandmother and mother to keep them from feeding the baby, "to keep it from starving," before the mother's milk comes. Firmness during this trying period will bear rich fruit in discipline of both mother and baby in the weeks to come. During the first

three days the breast secretes but little fluid, no milk, until the end of the second, or sometimes during the third day. If this is borne in mind much trouble with the nipples will be averted if the child is put to the breast every six hours during the first twenty-four hours, every four hours during the second day, once during the second night, every three hours during the third day, twice during the third night, and every two hours during subsequent days and twice at night. This infrequent nursing during the period when the breasts are practically empty following the first nursing, when the colostrum is drained away, is as effectual as anything possibly could be in preventing cracked, eroded and fissured nipples. Pulling and tugging at a practically empty breast is one of the most frequent causes of this annoying complication.

Should artificial feeding be necessary, as carefully written directions must be given for the preparation of the food as would be for the preparation of a prescription for medicine. A good wet nurse should be provided, if possible, but all know how difficult these are to obtain, even in a city the size of Louisville. Cow's milk is the next best substitute, and it must be carefully modified to meet the needs of the individual child. This cannot be done in a haphazard fashion, but only with a definite knowledge of the requirements in the case. One must learn to think in percentages of the three chief ingredients of milk, viz., fat, sugar and proteids. A modified milk is an adapted milk, these ingredients being adapted to the individual needs of the child.

Constipation is the normal condition of the infant, from the third or fourth month. This is due to the conformation of the sigmoid and colon. The sigmoid in the infant is longer in proportion to the length of the colon than any other portion of it, and the mesosigmoid is longer than it is in later life, giving the sigmoid a wider range of motion. Hence this portion of the bowel is often found beyond the median line of the abdomen, on the right side, and as it is the reservoir for the fecal accumulation of the intestines until the bowel contents reach the rectum there is no passage of fecal matter. No change of diet will accomplish regular daily evacuations, and they must be had by the administration of daily enemata, or alternate use of the enemas or glycerin or soap suppositories. As the child grows, with lengthening of the abdominal cavity and deepening of the pelvis, the descending and transverse colon lengthen at the expense of the sigmoid. The sigmoid becomes much straighter than before and unassisted movements from the bowel are more frequent. The futility of administering purgatives is thus explained. No harm can result from the enema or suppository during the few months they may be needed.—Henry Enos Tuley, *Archives of Pediatrics*.

PHARMACODYNAMIC CONFERENCE ON BRYONIA.—By Dr. Fornias. The object of this conference is not only to point out the characteristic symptoms of *Bryonia*, and indicate the affections in which it may prove curative, but above all to discuss and analyze the corresponding morbid conditions where those symptoms are present. In this way one can appreciate and get hold of the mutual relation existing between disease manifestation and drug action.—*Journal Belge*, No. 4.

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

SUPRARENAL CAPSULES AND SEXUAL EXPRESSIONS.—Bortz, of Berlin, reports the case of a young girl, well developed, who having commenced to menstruate when 15 years old, at the end of 20 months, the periods suddenly stopped and were followed by a complete change of countenance. Up to this time she was frail, but at once she started to develop and grow bigger. Her voice became altered and took a masculine quality of tone; hairs came out abundantly on the chest and at the level of the abdominal linea alba. Soon her face grew a sidebeard and a slight mustache. Her form remained, however, entirely feminine; the mammæ well developed, and a careful examination of the genital organs revealed the vulva, vagina and uterus anatomically correct. There was no hypertrophy of the clitoris. An abscess of the hand, having been followed by septicemia and death of this girl, the autopsy confirms the perfect normal development of the genital apparatus, with the exception of the ovaries, which were somewhat atrophied. She disclosed besides the existence of a typical *hyponephrome on the level of suprarenal capsules*. At the right side two nuclei of the size of a cherry, and at the left a voluminous tumor, measuring 12x5x7 centimetres covering the two superior and internal third of the kidney.

This curious observation reminds us of the cases of Engelhardt, Fibiger and Merchand, who discovered a *hyperplasia of the suprarenal capsules*, where the presence of the *accessory suprarenal glands*, in false or *spurious hermaphroditism*, really belong to the female sex (well developed uterus and ovaries), but exhibiting external genital organs and other secondary features of the male organism. These facts, according to Bortz, establish the relations, yet obscure and ill-determined, between the suprarenal capsules and the sexual glands. We know, moreover, that in dogs, the removal of the ovaries is followed by hypertrophy of the suprarenal glands.—*La Presse Medicale*.

ANTAGONISM BETWEEN THE SUPRA-RENAL GLANDS AND THE PANCREAS.—Dr. Ghedine, of Genoa, reports 60 cases, in which he has seen, after injections of *adrenalin*, the development of *glycosuria* in 23 individuals. This morbid condition was most frequently observed among nervous patients, and more rarely in those suffering from liver trouble. This glycosuria can become considerable if we give at the same time *adrenalin* and glucose, and in man as in animals the *adrenalic-glycosuria* can be arrested by the administration of the extract of pancreatic juice. The febrile state or the afebrile, of the individual seems to have no influence on the development of the reaction. *Diabetics* are very sensitive to *adrenalin*, and react with doses, which in the normal subject would bring about no reaction.

If one considers that by these researches and other analogous ones, the

antiadrenaltic action of the pancreatic juice can be demonstrated; if we reflect, on the other hand, that the *pancreatic lesions* are, in general, not rare in diabetics, and that frequently the *proctolitic ferment* cannot be found in the feces of these patients, it does not seem to me rash to suppose that the *glycosuria*, so frequently observed after *injections of adrenalin* should be attributed to an insufficiency of the pancreas.—*La Presse Medicale*.

TOXICITY OF NASAL INSTILLATIONS OF ADRENALIN.—Sermoyez and Aubertin have produced in rabbits, by the prolonged instillations of *adrenalin*—hypertrophic lesions of the heart, and sometimes *suprarenal hyperplasia*. These authorities have never observed either *aortic atheroma* nor *visceral arteriosclerosis*. In one case death was the result of *acute oedema of the lung with intense congestion of Schneiderian membrane*.

Josue states that *acute oedema* is almost always provoked by *intravenous injections of adrenalin*. With subcutaneous injections the *oedema* can be produced by injecting as high as 10 to 12 cc. of *adrenalin*.

Lermoyez asserts that especially in America there is an increasing tendency to treat *hay fever* with *instillations* or *inhalations* of *adrenalin*, and that the enormous doses employed by the patients unknown to their physicians have brought about serious results, particularly in those suffering from *arteriosclerosis*.

IMPORTED CASE OF TYPHUS FROM ALGERIA.—Dr. Passovy reports a recent case of *exanthematous typhus* imported from Bana (Department of Constantine), which presented the almost complete symptomatology of this eruptive fever: Typhoid state, absence of intestinal trouble and hypertrophy of spleen; characteristic rash composed of confluent petechias on the body and limbs, and larger and less numerous erythematous elements resembling the isolated patches of measles. Moreover, the evolution was relatively rapid as defervescence started on the eighteenth day of the disease, and convalescence was remarkably easy.

From the experience of two of my confreres of Algeria, I learn that *typhus fever* is endemic in the region of Batna.

Notwithstanding the late isolation of this case, the patient not having informed anyone of his condition, the disease did not spread. This result confirms the opinion of Netter, who claims that *typhus* while extremely contagious among the poor and destitute, it is hardly so in the well-to-do classes. And Netter thinks pertinent to ask if this is a probable hypothesis, what becomes of the parasites—are they not the chief agents of the dissemination of the malady?

PLEURISY IN SCARLATINA.—Teissier and Duvour report three observations of *pleurisy in scarlatina with sero-fibrinous effusion*. The evolution was insidious. Only one case presented a *sero-purulent exudation with streptococci*. These attacks of pleurisy are latent and their evolution slow. The subjacent lung is always involved and the foci of pulmonary congestion seem to preside over the appearance of the effusions.—*Journal des Praticiens*.

THE HAHNEMANNIAN MONTHLY.

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Symposium on Recent Advances in Pathology

RECENT ADVANCES IN MEDICAL PATHOLOGY.

BY

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(Presented before the Homœopathic Medical Society of the State of Penna., Scranton, September 23, 1909.)

IN the field of medical pathology, we have selected for discussion the following subjects: Anaphylaxis, the tuberculin reaction, the serum diagnosis of syphilis, opsonins and vaccines. We also remark very briefly on the serum treatment of meningitis and blood cultures in typhoid fever.

ANAPHYLAXIS.

Anaphylaxis is a specific, congenital or acquired condition of hypersusceptibility or supersensitiveness of the organism to foreign substances. Its extensive study has been the special merit of Drs. Rosenau and Anderson.¹ The importance of the matter lies in its relation to immunity, its possible explanation of the period of incubation of certain infections, its relation to the toxemias of pregnancy and its connection with the accidents of serum therapy. One of its best demonstrations as a factor in infectious diseases is found in tuberculosis.

Most of the studies on anaphylaxis have been made experimentally on guinea pigs, and the condition may be induced in

them, as in other animals, by the introduction of any strange protein, examples common by usage being horse serum, egg-white or milk. Horse serum has been especially studied on account of its connection with serum therapy.

If a guinea pig be injected with a small amount of a certain protein, say 1-250 of a cubic centimeter of horse serum or 1-1,000,000 of a gram of pure egg albumin, and, after a proper interval, 7 to 12 days, be subjected to a second injection of the corresponding protein, as low as 1-10 of a cubic centimeter of horse serum or 1-2,000 of a gram of pure egg-white, the animal is so sensitized to this protein by the first injection that the introduction of a second dose, while in its state of hypersusceptibility or anaphylaxis, results promptly in marked symptoms of illness and usually death.

The cause, pathologic anatomy and physiology and various details of this phenomenon have been the subjects of painstaking research but with, as yet, little reward in the shape of definite information on basic points. We will not attempt to go into a review of them here except to state that the toxic principle has not been isolated; that, while Anderson and Rosenau suggest that the poison acts on the respiratory center, Auer and Lewis² later state that the animals die from asphyxia due to peripheral causes; and that pigs may be sensitized by feeding them uncooked horse meat, cooking preventing sensitization. This last may be explanatory of poisonings in man after eating fish, sea food or other articles of diet.

Anaphylaxis and immunity are very closely related. One may depend upon the other. An animal may be in a state of hypersusceptibility and immunity at the same time. Rosenau and Anderson say: "We believe the problem of hypersusceptibility has an important bearing upon the question of immunity and hence we expressed the opinion that resistance to disease may be largely gained through a process of hypersusceptibility. Whether this increased susceptibility is an essential element or only one stage in the process of resistance to disease must now engage our attention. We cannot escape the conviction that this phenomenon of hypersusceptibility has an important bearing on the prevention and cure of certain infectious processes. Our work upon the hypersusceptibility produced by the bacterial proteins strengthens this belief, for our recent results prove that the phenomena of hypersusceptibility to certain protein substances extracted from the bacterial cell is followed by

a definite immunity against infection by the micro-organism. It has been shown that guinea pigs may be sensitized by injection of bacterial proteins: a second injection after a definite interval produces characteristic symptoms like those from horse serum: following this, the animal is immune to the corresponding infection. These results suggest the practical significance of anaphylaxis in the prevention and cure of certain infectious diseases.

The phenomenon of hypersusceptibility is also said to very probably explain the period of incubation in some infectious diseases. "Is it a coincidence that the period of incubation of a number of infectious diseases is about ten to fourteen days, which corresponds significantly with the time required to sensitize animals with a strange protein?" In this group of affections, the body may be sensitized by the foreign protein slowly dissolving out of the infecting organism, thus requiring a certain time before the poisonous effects are evident. This not only explains the "period of incubation," but the constancy of that period. In pneumonia with its short incubation, the crisis about the tenth day may be similarly explained.

It has been proven that the specific hypersusceptibility may be transmitted from the mother guinea pig to the young, and it is suggested that this may throw light on the so-called inherited tendency to tuberculosis. This is strengthened by analogies in the action of tuberculosis and horse serum, both producing hypersensitiveness and a certain amount of immunity. If anaphylaxis to horse serum may be transmitted from mother to young, may not a hypersusceptibility or tendency to the disease be thus transmitted and explain the common occurrence of tuberculosis "running in families"?

It may be that the problem of puerperal eclampsia is solved by anaphylaxis. This phase of the question is discussed by Dr. Betts.

The relation of anaphylaxis to the accidents of serum therapy is now well established. Very rarely, death has immediately followed the injection of diphtheria anti-toxin. It has been proven that the diphtheria anti-toxin has no relation whatever to this accident. The poison in such cases rests in the horse serum itself: its action is rendered possible by the susceptibility of the individual. Such a subject is in a state of anaphylaxis to horse serum. Many of these cases were asthmatics, which is noteworthy, considering the effects on respiration of a sec-

ond dose of serum in pigs. It may be that in such instances the needle of the syringe has penetrated a blood vessel, a large amount of foreign protein thus suddenly entering the circulation. The serum itself in such cases is not especially toxic to pigs. How the individual becomes thus sensitized is still an open question.

Rosenau and Anderson remark on the strong connection between body defense and protein metabolism and refer to the fact that Ehrlich's and Metchnikoff's theories both involve this form of metabolism. Anaphylaxis is also evidently intimately bound up with protein metabolism, and the authors say, "it cannot but excite our wonder that the chemistry of the body should be so delicately balanced that the introduction of 1-10,000,000 of a gram of foreign protein should be able so profoundly to influence it as to result in serious symptoms when injected a second time."

THE TUBERCULIN REACTION.

A beautiful, practical demonstration of anaphylaxis is seen in the tuberculin reaction. If an individual become infected locally with tuberculosis, the tissues generally become anaphylactic or hypersensitive to the tubercle bacillus or its products, presumably as a part of the immunity process. On this depend the various tuberculin reactions. The process is protective. Tuberculous areas are thus limited and walled off by the hypersusceptible surrounding tissues. The tissues are generally on the alert to repel any further advances or invasions of the disease. This reaction had been taken advantage of in the general response to the subcutaneous injection of tuberculin, but the much simpler and safer methods of local reaction as evidence of the hypersusceptibility of the tuberculous subject have to a great extent displaced the former.

We do not propose to go into a discussion of the technic or relative values of the ocular, cutaneous and subcutaneous uses of tuberculin in diagnosis and prognosis. We believe these methods will prove of almost inestimable value in the study of tuberculosis, and with the recent careful work of von Pirquet, Calmette, Wolff-Eisner, Baldwin and Hamman, and, further, the tendency to estimate the quantitative as well as the qualitative factor in the introduction of tuberculin, we may expect much contributed to diagnostic, prognostic and therapeutic

fields in tuberculosis. The two following are examples of such contributions.

Von Pirquet³ suggests for international statistical study annual applications of his cutaneous test to discover at what age children usually acquire tuberculous infection. This would show at just what age they are most susceptible and enable us to institute proper hygienic and prophylactic measures at or before the time of greatest danger.

In the normal state, there is no reaction to tuberculin. In tuberculosis there are varying degrees of reaction except in the advanced and final stages when reaction fails to occur. The difference between the healthy individual and the subject in the last stage of tuberculosis is that the healthy man has not had his anaphylactic powers developed while the tuberculous individual has had them developed and exhausted. Tuberculous patients whose specific hypersusceptibility to tubercular poisons is broken down are capable of presenting little or no resistance to the advance of the disease. Rosenau and Anderson say that the practical lesson of this is as tuberculin in large and too frequently repeated doses exhausts this very useful and beneficial state of hypersusceptibility, it should only be used in such a way as to develop and not diminish the power of anaphylaxis of the tissues.

THE SERUM DIAGNOSIS OF SYPHILIS.

This is a test-tube serum reaction depending upon the binding or fixation of complement. The test is based upon Ehrlich's well known theory of immunity and requires an understanding of the principles of that theory. It occurs from the fact that there are certain substances present in the blood and serum of syphilitics, not contained in non-syphilitics, which will unite with the extracts of leucic and normal organs and with certain liquids and so anchor complement. Now, when the non-specific complement, a very necessary factor in certain forms of immunity, is bound, it cannot form chemic combinations with other substances. Hence, the binding of complement is proven or disproven by following with a test for hemolysis. the presence or absence of hemolysis indicating the absence or presence of syphilis. This test was first described by Wasserman, Neisser and Bruck⁴ and is commonly known as the Wasserman reaction. Its great drawback has been the amount of

technic and equipment required, making it impractical outside of well fitted laboratories. Many diligent workers are now trying to secure a simplification of the method, the most likely one so far being the modification of Noguchi.⁵

The advantages of the test are obvious. Statistics are now available from thousands of cases and there is no reasonable doubt, even with those at first skeptical, of the great value of this reaction as a means of diagnosis. A recent conservative estimate gives 40 to 60 per cent. of positive reactions in the first stage, 70 to 90 per cent. in the secondary stage and 50 to 90 per cent. in the tertiary stage. In cases of tabes and general paresis the serum or spinal fluid gives a positive reaction in 60 to 80 per cent. of subjects. The immense importance of this test in questions of marriage, offspring, wet nurses and latent cases can be appreciated. The results of the reaction have removed tabes and paresis from the class of para-syphilitic diseases and grouped them positively with those of leutic origin in which an active agent is still at work. Dr. Fox discusses this portion of the subject more fully.

The fact that the reaction becomes negative under a sufficient number of courses of mercurial treatment has led to much investigation as to whether the test will be an indicator of the prognosis and success of the treatment and a guide as to when to begin or stop treatment. There has been considerable controversy on this subject, but a recent communication from Neisser's clinic and contributions from observers in this country suggest that it will be of much value in all these respects, thereby enhancing its value still more.

Furthermore, disease which we think of as remotely or possibly syphilitic, we may now have reason to connect directly with luetic infection. Collins and Sachs⁶ in a very practical paper on the "Value of the Wasserman Reaction in Cardiac and Vascular Disease" point out the large percentage of positive reactions in aortic disease, especially as contrasted with mitral affections; and the equally frequent or greater occurrence in aneurysms. They give some very striking examples of its value in the diagnosis of such diseases and show that, using it as an indicator for active anti-leutic treatment with mercury instead of the usual potassium iodide, they obtained very satisfactory therapeutic results.

OPSONINS AND VACCINE THERAPY.

The present status of this subject is one difficult to estimate. Some confusion is entailed by the almost invariable association of opsonins and the opsonic index with vaccine treatment. Opsonins have no more essential connection with vaccines than they have with any other method of treatment. Opsonins are substances present in the blood serum and other fluids of the body in small quantities normally; increasing greatly and specifically with the development of immunity to various infections; and decreasing specifically with lack of immunity. Wright devised a method for measuring the amount of opsonins present, termed this the opsonic index and used it as a guide for his treatment by the administration of bacterial vaccines. But we may, if we choose, use it just as well as a guide for any other method of treatment. And, on the other hand, we may employ vaccine treatment without the opsonic index as a guide, using clinical data, such as temperature, pulse, leucocyte count, or other immune bodies such as agglutinins or bacteriolyins as indicators.

That opsonins are important factors in immunity is well established. Whether they can be accurately measured by Wright's method and whether the method is practical is still debatable. We believe the method is fairly accurate in the hands of a good technician; quite as much or more so than many other clinical and physical diagnostic methods in vogue. It is practical in some cases. In others, it is a question whether the amount of time expended in the estimation will be repaid by the information furnished. It is good to know that experts in opsonic work are carefully comparing indices and clinical data and furnishing us with clinical signs which may be taken as equivalents of rises and falls in the opsonic index. It is evident that the estimation of the opsonic index, like many other valuable medical methods, for example the Widal reaction, requires a certain amount of time and technic. It is equally certain that it furnishes some very good diagnostic and therapeutic indications.

Vaccines have followed the usual course of new things. At first, they were decidedly over-rated: the tendency now is to under-rate them. And finally they will seek their normal level. That they are valuable additions to therapeutics, hardly any well informed physician doubts. Two facts concerning them

are noteworthy: that, at present, they are more useful in certain infections than any other method of treatment, and that they save lives in diseases which were formerly under similar circumstances fatal. In some instances, they have been disappointing, notably in streptococcic infections. A number of observers also report poor results in colon infections. But very good reports have followed their use in tuberculosis, staphylococcic, gonococcic and typhoid infections. Some remarkable cures have been achieved in streptococcic and colon infections. Such excellent observers as Hale, White and Eyre ⁷ report a very successful series of cases due to the gonococcus and colon bacillus. Gilman Thompson ⁸ records a number of cases of septic endocarditis which recovered following the use of vaccines. Preference seems to be given to autogenous vaccines.

Our judgment in this matter is better suspended until we are fully informed. Vaccines are not cure-alls as every lazy physician expects every new remedy to be. It will be well to recall the introduction of diphtheria anti-toxin and the mad rush to provide anti-sera for almost every infection. At present we know that outside of diphtheria, tetanus and meningitis, they are of little or no value. The same may be true of vaccines, and, in a few years, we shall probably have clear cut indications for their use in a limited number of diseases, and we may expect, we think, most satisfactory results in these cases.

ANTI-MENINGITIS SERUM.

A word as to the serum treatment of meningitis. Flexner ⁹ states statistics are now available showing conclusively that the treatment has "shortened the course, diminished complications and reduced the mortality" of this frightful disease. The serum is injected intraspinally and some observers inquire whether it is not the protein bodies present that are active in the successful results rather than any specific property of the serum itself. At any rate, the results are extremely encouraging.

BLOOD CULTURES IN TYPHOID.

The case with which positive blood cultures are obtained in typhoid fever deserves mention. A small amount of blood, 1 or 2 c.c. or even a blood clot, planted in ox-bile will result in

typhoid growth in a goodly percentage of such infections, and allow a very early diagnosis and corresponding early treatment and care of the case.

1. Anderson and Rosenau: *Arch. Int. Med.*, 1909, iii, 519. The Harvey lecture for December, 1908. Almost all the remarks on Anaphylaxis were abstracted from this valuable article.
2. Auer and Lewis: *Jour. Amer. Med. Assn.*, 1909, liii, No. 6.
3. Von Pirquet: *Jour. Am. Med. Assn.*, 1909, lii, 677.
4. Wasserman, Neisser and Bruck: *Deutsch. med. Wchschr.*, 1906. xxxii, p. 745.
5. Noguchi: *Jour. Exper. Med.*, March, 1909.
6. Collins and Sachs: *Am. Jour. Med. Sc.*, September, 1909.
7. White and Eyre: *Lancet*, May 29, 1909.
8. Thompson: *Am. Jour. Med. Sc.*, August, 1909.
9. Flexner: *Proc. Am. Assn., Phys.*, May, 1909.

RECENT ADVANCES IN SURGICAL PATHOLOGY.

BY

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(Read before the Homœopathic Medical Society of the State of Penna., Sept., 1909).

A TREMENDOUS amount of experimental work has been done in studying the effects of the extirpation of the parathyroid glands and it would be impossible to even outline all of it.

W. G. MacCallum and Carl Voegtlin have carried out a series of experiments to ascertain in cases of outspoken tetany after parathroidectomy the effect of giving various mineral salts which might occur normally or under pathological conditions in the animal body, particularly the soluble calcium salts. A second group of experiments was arranged for the study of the changes in the metabolism during tetany and in the chemical composition of the tissues in animals dying in that condition. The chemical characteristics of the excreta, constitution of the blood, brain, etc., were studied and compared with those of normal control animals. The calcium salts were first chosen because it had been observed that a lessening of them in the body has a decided effect upon increasing the nervous hyperexcitability.

From their experiments which have been partly borne out by clinical findings they have reached the following conclusions:

1. Tetany occurs spontaneously in many forms and may also be produced by the destruction of the parathyroid glands. Recent researches tend to demonstrate an intimate relation between the various forms of tetany and relative or absolute insufficiency of the parathyroid gland.

2. The parathyroid glands are independent organs with definite specific function. Whether or not this function is intimately related to that of other organs of internal secretion is not as yet proven.

3. The number and distribution of the parathyroid glands vary. Failure to produce tetany experimentally is probably due to the fact that some parathyroid tissue remains after an apparently complete extirpation. When extirpation is complete tetany appears, even in herbivora. Only a very small amount of parathyroid tissue is required to prevent this.

4. The effect of the extirpation of the parathyroid glands may be annulled by the reintroduction of an extract of these glands, even from an animal of widely different character. The active principle is associated with a nucleo-proteid in the extract and may be separated with the nucleo-proteid from the remaining inert albuminous substances. Its effect in counteracting tetany appears some hours after injection and lasts several days.

5. The parathyroid glands contain no considerable amount of iodine. The parathyroid extract is not an iodine containing compound.

6. In tetany there is apparently some disturbance of the composition of the circulating fluids ordinarily prevented by the secretion of the parathyroid, which disarranges the balance of the mineral constituents of the tissues. Possibly this consists in the appearance of an injurious substance of an acid nature for such tetany may be relieved by extensive bleeding with replacement of the blood by salt solution. No actual poisonous material has, however, been demonstrated by the transference of the blood of a tetanic animal to the veins of a normal one.

7. Numerous researches have shown the important relation of the calcium salts to the excitability of the central nervous system. Their withdrawal leaves the nerve cells in a state of hyperexcitability which can be made to disappear by supplying them with a solution of a calcium salt.

8. Tetany may be regarded as an expression of hyperexcitability of the nerve cells from some such cause.

9. The injection of a solution of a salt of calcium into the

circulation of an animal in tetany promptly checks all the symptoms and restores the animal to an apparently normal condition.

10. Injections of magnesium salts probably have a similar effect, but these effects are masked by the toxic action of the salt.

11. The injection of sodium or potassium salts has no such beneficial effect but rather tends to intensify the symptoms. This is true also of the alkaline salts of sodium which were studied especially in respect to their basic properties.

12. The effect of calcium is of value in human therapeutics in combating the symptoms of spontaneous forms of tetany and in relieving the symptoms in cases of operative tetany and thus tiding over the period of acute parathyroid insufficiency until remnants of parathyroid tissue can recover their function or new parathyroid tissue can be transplanted. It is in this way an important and convenient ally of the method of injecting parathyroid extract.

13. Studies of the metabolism in parathyroidectomized animals show:

1. A marked reduction in the calcium content of the tissues especially of the blood and brain, during tetany.

2. An increased output of calcium in the urine and faeces on the development of tetany.

3. An increased output of nitrogen in the urine.

4. An increased output of ammonia in the urine with

- 4a. An increased ammonia ratio in the urine.

5. An increased amount of ammonia in the blood.

Much of this affords evidence of the existence of some type of acid intoxication. Its effects are, however, not neutralized by the introduction of alkaline sodium salts and may perhaps be regarded as especially important in producing a drainage of calcium salts from the tissues, which can be remedied by the re-introduction of calcium salts.

14. Emphasis must be laid upon the remarkable difference which exists between the alterations in metabolism following thyroidectomy and those following parathyroidectomy. In myxedema there is lowered metabolism, decreased respiratory changes and lowered nitrogen output with depression of body temperature. In tetany there is increased metabolism, probably increased respiratory changes, certainly increase in nitrogen output and elevation of the temperature.

15. It is important, therefore, that in any experiments upon metabolism in relation to the thyroid and parathyroid gland,

these glands should be clearly distinguished as structures exercising very different and in large part contrary effects upon metabolism.

16. In general the role of the calcium salts in connection with tetany may be conceived of as follows: These salts have a moderating influence upon the nerve cells. The parathyroid secretion in some way controls the calcium exchange in the body. It may possibly be that in the absence of the parathyroid secretion, substances arise which can combine with calcium, abstract it from the tissues and cause its excretion and that the parathyroid secretion prevents the appearance of such bodies. The mechanism of the parathyroid action is not determined, but the result, the impoverishment of the tissues with respect to calcium and the consequent development of hyperexcitability of the nerve cells, and tetany is proven. Only the restoration of calcium to the tissues can prevent this.

17. This explanation is readily applicable to spontaneous forms of tetany in which there is a drain of calcium for physiological purposes, or in which some other condition causes a drain of calcium. In such cases the parathyroid glands may be relatively insufficient.

In the same connection Halsted has carried out a number of transplantations of the parathyroids and finds that is transplantation has been uniformly unsuccessful, and no autotransplantation has succeeded, without the creation of a deficiency greater than one-half of such glandular secretion, then sixty-one per cent. succeeded.

Parathyroid tissue transplanted in excess of what is urgently required by the organism has not lived.

One autograft may suffice for many months and possibly years.

Excised or deprived of their blood supply in the course of operation upon the human subject, parathyroid glands should, in the present state of our knowledge, be grafted and probably into the thyroid glands.

Complete excision of the thyroid lobes in dogs may be well borne for a year or more. The myxoedema which usually has manifested itself within a few weeks has not increased after the first few months. May it subsequently diminish with the hypertrophy of accessory thyroids?

Parathyroid tissue is essential to the life of dogs, as has been

conclusively proved by the result of excision of the sole sustaining graft.

Another organ which has received much consideration is the pancreas. The etiology and pathology of chronic pancreatitis has been placed upon a fairly firm basis, but the acute conditions still require a great deal of thought.

Eugene L. Opie, one of the foremost workers upon the pancreas, and J. C. Meakins have carefully reviewed the literature upon this subject, and from several interesting autopsies which they describe in full believe that the lesion usually designated acute hemorrhagic pancreatitis is primarily necrosis of the pancreatic parenchyma and may be caused by various, usually chemical, occasionally mechanical, injuries to the gland. The name hemorrhagic necrosis is preferable to acute hemorrhagic pancreatitis because the lesion is essentially widespread necrosis of the pancreatic parenchyma and the inflammatory changes which occur are secondary to necrosis or subsequent to bacterial infection.

The pancreas is not more susceptible to spontaneous hemorrhage than other organs; so-called pancreatic apoplexy is the result of acute pancreatic necrosis. In some instances pancreatic necrosis may cause little, if any, hemorrhage. So-called gangrenous pancreatitis is a late stage of hemorrhagic necrosis.

Hemorrhagic necrosis of the pancreas is not primarily the result of bacterial infection, but in some instances subsequent infection of gangrenous tissue may cause suppuration.

The most frequent cause of hemorrhagic necrosis of the pancreas in man is penetration of irritant material into the ducts of the pancreas. Bile diverted by a gall stone lodged at the duodenal orifice of the common bile duct has produced the lesion in a large proportion of cases; duodenal contents entering the duct may have the same result. In a small proportion of cases pancreatic necrosis follows injury to the gland and is perhaps in part referable to simultaneous thrombosis of blood vessels.

Certain individuals are rendered susceptible to hemorrhagic necrosis of the pancreas by anatomical peculiarities or anomalies of their pancreatic ducts. In some individuals the passage of a gall stone may divert bile into the pancreas; in others perhaps the structure of the ducts may be such that duodenal contents can find its way into the pancreatic ducts, and thus cause the disease.

George Emerson Brewer calls attention to the fact that under

certain conditions the bacteria which find their way into the blood stream during an acute infectious disease are excreted through the kidneys. If the number of bacteria is large, their virulence high or the kidney diseased, lesions are produced, varying from a slight cloudy swelling or glomerular nephritis to a complete destruction of the organ by purulent infiltration or necrosis.

The lesions most commonly found are due to the plugging of the smaller arteries and capillaries with bacteria and these are surrounded by round celled infiltration. When larger trunks are involved, triangular infarcts are present; where the capillaries only are affected, minute abscesses occur throughout the cortex and beneath the capsule. If the process goes further the bacterial emboli are rarely seen, only areas of necrosis and purulent infiltration. At a still later stage these parenchymatous foci of pus form abscesses which may rupture into the perinephritic tissue or the pelvis of the kidney.

To prove that disease of a kidney was a strong predisposing factor in directing a blood infection to that organ a number of animal experiments were undertaken. Broth cultures of various pathogenic bacteria, as the colon bacillus, bacillus typhosus, streptococcus pyogenes, staphylococcus pyogenes aureus, pneumococcus and others were injected into the ear veins of rabbits and dogs, and one kidney subjected to various forms and degrees of trauma. In other cases conditions simulating calculus were produced by injecting bismuth paste into the pelvis and ureter, while in others the ureter was ligated. In a large proportion of these experiments lesions were produced in the injured kidney identical with those found in clinical cases.

Richard H. Harte has collected one hundred and eleven cases of primary carcinoma of the appendix.

He has made a careful study of the various signs, symptoms and pathological data relative to this condition and finds that primary carcinoma is present in from one-third of one per cent. to one per cent. of all cases operated upon for chronic appendicitis. But few cases are collected at autopsy.

Institutions which make a thorough microscopic examination of all appendices removed at operation and at autopsy will report a larger percentage of cases of carcinoma of the appendix.

Carcinoma of the appendix, especially of the basal—or spheroidal—celled type, is a condition of early life, occurring gener-

ally between the ages of ten and forty years. There is little tendency to metastasis and the origin of the disease is, as a rule, in the mucosa.

The disease appears to be slightly more frequent in females than males.

Acute and chronic inflammations are present and are responsible for the symptoms demanding operations. The growth, while localized, gives no pathognomonic symptoms.

The fact that primary carcinoma of the appendix takes its origin in an inflammatory process, forms a very strong argument for the removal of all appendices which show evidence of any irritation.

E. Libman and H. L. Cellar have made an examination of one hundred and sixty-three blood cultures in one hundred cases of infections of otitic origin. The studies are of particular interest for they help materially to decide the presence or absence of a meningitis or sinus thrombosis, for after a thorough mastoid operation, positive results were only found when these complications were present. In meningitis cases the pneumococcus and streptococcus mucosus have been discovered, but when streptococci were present the sinus was always involved, provided all other foci of infection could be eliminated. Part of their success in getting positive results was due to the early and frequent cultures.

The significance of their positive results lies in those cases in which a thorough mastoid operation has been performed and the otologist is not sure that further local disease is not present. The finding of streptococci in the blood then calls for an exploration of the sinus.

In certain cases, after the sinus has been explored and a clot has been removed and the jugular vein has not been ligated, the persistence of streptococci in the blood has given the indication to tie the jugular vein, and in almost all cases the bacteria then promptly disappeared from the blood.

Significance of negative results: Negative results can be obtained, even though not frequently, in cases in which a sinus thrombosis is present. The absence of bacteria in a doubtful case should cause hesitation in exploring for a thrombus until the possibility of all intercurrent diseases has been excluded or until the symptoms have become so severe as to justify an exploratory incision.

If the blood cultures should be negative and the symptoms

persist in a given case, whether there is a sinus thrombosis or not, acute endocarditis can be excluded. In such cases it is advisable to take two cultures as in endocarditis due to ordinary streptococci (in the author's experience) bacteria are always found in the blood if two cultures are made.

If there has been a sinus thrombosis and bacteria have been present in the blood, and the jugular vein has been ligated, a negative culture is of value in showing that the general invasion has been stopped.

Occasionally a negative blood culture has been of value in cases with a clinical picture of rheumatism. It is very valuable in such cases to know that we are not dealing with an arthritis due to a general invasion by the ordinary bacteria.

RECENT ADVANCES IN NEUROLOGY AND PSYCHO-PATHOLOGY.

BY

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(Read before the Homœopathic Medical Society of the State of Pennsylvania, September, 1909).

The Confirmation afforded by the Wassermann reaction of our belief in the syphilitic origin of tabes and paresis, and the consequent value of the reaction in its application to the diagnosis of these diseases.

In 1871 Fournier first called attention to the great frequency with which a syphilitic history is obtainable in tabetics, and, because of this fact, he proposed that tabes be considered a para-syphilitic disease. Since then many authorities have made investigations in order to collect statistics concerning the incidence of association of the two conditions.

In a monograph on tabes William Erb¹ states that in his examination of 1,100 male tabetics of the better classes he found that 89.45 per cent. had been infected previously with venereal disease; 62.9 per cent. presenting evidences of secondary syphilis, and 26.54 per cent. acknowledged having had chancres. Judging from their descriptions and from the treatment to which they had been subjected many of the latter could be regarded as syphilitic. Of the remaining 10.55 per cent. many had probably been infected with syphilis. To control

these researches more than 10,000 non-tabetic men of the higher classes were examined. Of these 21.5 per cent. had been infected; 9.8 per cent. having had a chancre, and 11.7 per cent. had secondary syphilis. "Therefore," the author remarks, "*among the tabetics there were almost four and one-half times as many infections as among the non-tabetic men in the same class of society!*"

In the same monograph statistics of many observers are tabulated, and from these figures it would seem that the average frequency with which a syphilitic history is obtainable in tabetics is about 80 per cent.

The only personal investigation of this subject, conducted with Dr. Hicks, was an analysis of 25 cases of tabes. In this small series we found a history of syphilis and the presence of its phenomena to be positive in 50 per cent., probable in 36 per cent., and absent, as far as we could discover, in 14 per cent. of the cases.²

It is a recognized fact that physicians often are unable to discover evidences of syphilis, or to obtain a history of the disease in men, and more particularly women, who have been infected. Now as tabes and paresis usually manifest themselves from 10 to 25 years after the infection it is pre-eminently more difficult to detect the primary disease. Therefore, many, if not all, of those residual cases of tabes and paresis which we are unable to demonstrate as syphilitic are, nevertheless, suffering from the effects of syphilis. This imperfection in our diagnostic ability is well indicated by Hirschl³ who, in speaking of 63 cases of late forms of syphilis, remarks that only 54 per cent. could be proven positively to have had syphilis, and that in 36.5 per cent. there was no proof of the former infection. These figures, however, are higher than those of Fournier⁴ who found syphilis ignorées in 3.10 per cent. of 3,862 males and in 17.90 per cent. of 395 females who presented tertiary syphilitic lesions.

In adverting to the etiology of paresis we find that the proportion of discoverable syphilis in this disease is about the same as that in tabes. After studying published statistics concerning paresis Peterson⁵ concludes that between 60 and 70 per cent. of cases of this disease are syphilitic. Furthermore, he estimates that syphilis has preceded only about 6 to 10 per cent. of all other forms of insanity. The same author cites Mott's study of 22 cases of juvenile paresis in none of whom syphilis

positively could be excluded. Mettler ⁶ observes that a history of syphilis can be obtained in from 70 to 90 per cent. of all cases of paresis. According to Mendel ⁷ 75 per cent. of paretics can be shown, by their histories, to be syphilitic, while in people in general of the same age and under similar circumstances syphilis exists in from 15 to 18 per cent. The inability successfully to inoculate nine cases of paresis with syphilis is a valuable experimental fact of which Krafft-Ebing has written.

It is interesting now to compare these anamnestic statistics with those adduced from the evidence afforded by the Wassermann reaction. It must be borne in mind, however, that a negative Wassermann reaction necessarily does not preclude the possibility of former syphilitic infection, for the reason that it has been abundantly demonstrated that there are spontaneous remissions in the course of late syphilis when the reaction cannot be obtained, and, furthermore, energetic anti-syphilitic treatment may cause negative sero-diagnostic findings in cases which previously had been positive.

As the Wassermann reaction is a very complicated diagnostic procedure it has not yet been applied to great numbers of cases of any one disease.

Schutze ⁸ found that the reaction was positive in 66.2-3 per cent. of 12 cases of tabes. A positive reaction was obtained by Lesser ⁹ in 56 per cent. of 61 tabetics and in 100 per cent. of 62 cases of paresis. The presence of syphilis in paretics, as revealed by the reaction, was observed by Wassermann and Plaut ¹⁰ in 78 per cent. of 41 cases; by Marie and Levaditi ¹¹ in 73 per cent. of 39 cases; by Mayer and Proescher ¹² in 83 per cent. of 12 cases; and by Stertz ¹³ in 95.5 per cent. of 45 cases. According to the experience of Castelli ¹⁴ the reaction was obtained in 100 per cent. of cases of paresis. Of 50 cases of paresis J. W. Moore ¹⁵ secured positive Noguchi reactions in 96 per cent. of the cases and he states that in the majority of these cases the Wassermann reaction also was employed but with less positive results.

Now for the purpose of comparison it is well to mention briefly the results of the application of the reaction to syphilis *per se*. Lederman ¹⁶ obtained positive findings in 100 per cent. of cases of syphilis of the nervous system in which the infection had existed for from 4 to 22 years, and in 100 per cent. of 16 children who presented inherited syphilis. Positive reactions were secured by Lee and Whitemore ¹⁷ in 89 per cent.

only of their cases of syphilis, regardless of the stage of the disease, and in 95 to 100 per cent. of cases of active secondary and tertiary syphilis. They add that in all cases which are known to be free from syphilis the reaction is negative. In Butler's series of syphilitics ¹⁸ positive reactions were obtained: in 100 per cent. of 10 cases in the primary stage; in 95 per cent. of 36 cases in the secondary stage; in 94 per cent. of 31 cases in the tertiary stage; in 56 per cent. of 16 latent cases; in 76 per cent. of 55 cases of parasyphilis and visceral syphilis; and in 100 per cent. of 11 cases of congenital syphilis.

As our belief in the syphilitic origin of tabes and paresis inductively has been amply confirmed by the Wassermann reaction, this procedure now assumes a deductive value, by being of assistance both in the diagnosis and in the treatment of these conditions.

FUNCTIONAL EPILEPSY.

The separation from epilepsy of the clinical syndrome to which the name psycholepsy has been applied is an example of recent neurologic and psycho-pathologic progress which should receive the attention and acceptance which it deserves. Because of its great importance, both from the point of view of the patient as well as his physician, this topic was chosen to represent the field of psycho-pathology. On account of time limitation it is impossible to do more than call attention to this matter at present.

Indeed, we may well say that among the most notable of the many recent advances which have been induced by modern psycho-pathologic research is the quite general recognition, by those who are interested in abnormal psychology, of the fact that all cases which formerly have been considered psychic epilepsy, many cases of *petit mal*, and, in fact, a not inconsiderable number of cases of supposed major epilepsy, are, in reality, not cases of epilepsy but are manifestations of those psycho-neuroses which clinically are known as hysteria and psychasthenia.

We are indebted to Oppenheim, Sidis, Parker, White, and others, for their experimental work and for their masterly writings which have secured a firm foundation for the subject. These authors have reported many cases which at first were thought to be typical of some one of the types of epilepsy but

which subsequently were found, by means of psycho-analytic methods, to be cases of psycho-genetic attacks.

As recent research has shown that epilepsy is incapable of causing any symptom which cannot be duplicated, or at least simulated, by hysteria and psychasthenia, and as the crises, therefore, of these psycho-neuroses may be identical with those of epilepsy, we are unable now to make the diagnosis epilepsy simply because a patient is afflicted with seizures which conform to the classical text-book descriptions of those which are supposed to be characteristic of this disease.

The differential diagnosis of epilepsy and psycholepsy depends almost entirely upon psycho-analysis; especially upon painstaking search for dissociated or subconscious complexes which are capable of generating the crisis. For instance: if a case presents seizures which can be found to be due either to conscious, or to subconscious, association of ideas; if by some psycho-analytic method a wealth of dissociated complexes which are capable of causing attacks can be discovered; if the patient acts upon suggestions imparted to him during the height of the attack; and, if the crisis can be prevented, either by ordinary, or by hypnotic, suggestion, then his epileptiform seizures may be regarded as psycho-genetic (psycholepsy) no matter how closely otherwise they may resemble those due to epilepsy. Furthermore, among other points of dissimilarity in favor of the diagnosis psycholepsy is the fact that many of these cases have been subjected to prolonged and thorough courses of bromide treatment without having received any benefit from the drug, and that in those cases in which the condition has existed for many years intelligence and memory have not deteriorated progressively. Amnesia, if present in these cases, is purely functional in character, and events which apparently have been forgotten usually are capable of being recovered without difficulty by certain well known procedures. Finally, a psycholeptic generally can be caused, by means of hypnoidization, hypnotization, or by certain other agents, to remember events which took place during the height of an attack; it has yet to be demonstrated that this is possible in epileptics.

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RECENT ADVANCES IN GYNAECOLOGIC PATHOLOGY.

BY

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(Read before the Homœopathic Medical Society of the State of Pennsylvania, Sep-tember, 1909).

THE modern tendency to specialism has affected the great field of general pathology as it has affected every other branch of medicine. To-day the pathology of the female genitalia is becoming, if not a specialty, a field of investigation for a dis-tinct and independent body of workers. But a few years ago courses in gynaecological pathology were unheard of in our

medical colleges; at present practically all first class institutions give special instruction in this branch.

The histology of the female genitalia especially in the case of the uterus and ovary is in some respects unique. Types of cells and cellular changes are seen here which are not found in any other part of the body. As the result of pregnancy tissues are developed which would be unrecognizable to the student untrained in human microscopic embryology.

While many questions are still unsettled and much remains for the investigator in this field, the result of the research of the last few years has been a considerable advance in our knowledge of the local effects of pelvic disease.

Valuable results have been obtained by scores of workers in the investigation of the morbid changes of the endometrium and body of the uterus, the etiology and pathology of various types of metrorrhagia, the pathology of uterine infections and of pregnancy and along many other lines. While the specific cause of cancer remains unknown the exhaustive research to this end, notably by the Cancer Research Commission in England, has been far from fruitless. It is not possible here to enter into the discussion of the numerous theories which have been recently advanced as to the cause of carcinoma, though the subject is an exceedingly interesting one.

Sir Victor Bonney and McConnell, in studying the pathology of cancer, have described a pre-cancerous stage in which as a result of chronic inflammation the elastic tissue immediately beneath the epithelium degenerates and disappears previous to malignant proliferation. At the same time the sub-epithelial connective tissue shows more or less rarefaction, due to the disappearance of collagen and elastin. New lymph nodes are formed with germ centers similar to those seen in the neighborhood of a carcinoma while the connective tissue interstices are filled with plasma cells, poly-morphonuclear leucocytes and lymphocytes, the latter intercolating themselves between the deeper epithelial cells until the boundary between epithelial and connective tissue may become indistinct. Bonney, in studying a large series of cases, failed to find a single instance of cancer of the vulva in which the "chronic inflammatory condition known as leukoplakia was not antecedent to the onset of the new growth. . . . The earliest down growth of the epithelium is into a tissue deficient in yellow elastic fibres and otherwise profoundly altered by the pre-existent inflammatory

process." In speaking of cancer of the cervix he says: "Evidence of pre-existent cervicitis and 'cervical erosion' is present in all the early cases which I have examined. Carcinoma of the cervix may begin either in the thickened squamous epithelium that covers the area of an old erosion or in the hypertrophied cervical glands higher up. In either case the development of malignancy appears to bear some relation to the altered conditions which obtain between the epithelium and its underlying connective tissue as the result of long-continued cervicitis." These findings agree with the clinical picture of beginning cancer and are instructive from the standpoint of prophylaxis and treatment.

In concluding his interesting and scholarly lecture he summarizes as follows: "The onset of the ordinary forms of carcinoma is always preceded by a condition characterized by epithelial hypertrophy and certain constant changes in the subepithelial tissue. This precarcinomatous state may be attained through various inflammatory processes, at first quite distinct from one another but culminating in the same histological picture. The tissue cell proliferation occurring around a primary carcinoma is a part of the precarcinomatous process and materially assists the progress of the growth. There is no histological evidence of a protective reaction on the part of the tissues to the carcinoma cell. Though changes in the adjoining connective tissue bear some very close relation to the cause of epithelial ingrowth, yet malignancy having been established the further spread of the tumor is independent of such assistance."

Dr. Sappington, in his paper before this Bureau, has discussed anaphylaxis, or the heightened susceptibility of the organism to certain foreign substances. Anderson and Rosenau have advanced an interesting theory for the cause of eclampsia and the toxemias of pregnancy along this line.

It occurred to them "that either the blood or protein substance in solution from the fetus or the placenta may first sensitize the mother. A subsequent introduction into the system of the mother of a similar substance may explain the convulsions and the symptoms which occur in a certain class of the toxemias of pregnancy." Animal experimentation seemed to indicate that the sensitizing substance did not come from the fetus, which is in harmony with the generally accepted view and with the facts that eclampsia may occur in cases of hydatidiform mole and where the fetus had previously been expelled from the

uterus. They were able, however, to sensitize guinea pigs with the autolytic products of their own placentas. Further studies along this line are being made.

I am glad to add my share to the plea which is everywhere being made by workers in gynaecological pathology for a reform in the use of the term endometritis, acute and chronic. In the absence of malignancy or other gross uterine tissue changes the majority of cases of intra-uterine disease have been loosely classed as endometritis with some qualifying adjective, such as senile, tubercular, hypertrophic, hemorrhagic, putrid, etc., depending upon whether the clinician makes his classification from the standpoint of etiology, symptomatology, age of the patient, or tissue changes.

Mathew Duncan, in lecturing on the subject, started by saying: "Who can tell what any one means by endometritis? Often its use is the cloak for ignorance and confusion." A glance through a few text-books will show that much confusion still exists upon the subject and every possible variety of classification will be observed.

Endometritis means *inflammation* of endometrium—the simplest and best classification is into acute and chronic, the latter divisible into glandular and interstitial, and this terminology is steadily becoming more universally accepted. The pathologist may subdivide depending upon differences in histology but from a clinical standpoint these differences are without much significance. Aside from the results of gonorrhoeal, puerperal and instrumental infections acute endometritis is of little importance. Chronic endometritis is the diagnostic waste basket which has received under its heading all cases of endometrial disease which are not readily or accurately otherwise diagnosable. As a matter of fact we are learning to know that chronic endometritis is a comparatively uncommon condition. In 1,000 cases of curettage in Kelly's clinic only 2 per cent. showed endometritis, and the condition was seen in only 1.2 per cent. of 1,770 cases at the University of Pennsylvania Hospital. The condition which is usually encountered in a simple case presenting the symptoms ordinarily considered due to chronic endometritis is an hypertrophy of the endometrium with perhaps some edema or congestion but without the microscopic characteristics which make up the phenomena of inflammation. Let us drop such terms as hypertrophic and hyperplastic endometritis as we should the too frequent use of "cervical erosion."

that really unusual condition which is so often confused with ectropion or macula.

Anspach, of Philadelphia, has for several years been carrying on rather extensive investigations into the etiology of cases of menorrhagia and metrorrhagia, especially about the menopause, which present none of the usual causes of uterine hemorrhage and which are unusually intractable to treatment. Until very recently he appears to have believed that these symptoms were due to changes in the myometrium and uterine vessels of a sclerotic nature with loss of the normal muscular tone of the organ and the control of its circulatory equilibrium, so to speak. His most recent investigations, however, lead him to believe that hemorrhage which can be traced to no other cause than myometrical disease may be due rather to an *absence* of that elastic and fibrous tissue development about the vessels and in the uterine wall which may be considered normal to the period about the end of the child-bearing age. Uterine hemorrhage in these cases is then due to engorgement of the uterine arteries and veins which are weaker than normal. It is certainly true that especially in women who have borne children it is the rule rather than the exception to find sclerotic changes.

In a recent series of fifteen cases of intractable hemorrhage in which the uterus was examined microscopically all but four could be traced to other causes than myometrial disease. In these four purely myopathic cases "the only suggestion of a lesion was an apparently lesser degree of arterio-sclerosis than might have been expected from the parity of the individual."

This complete change of opinion after painstaking investigations lasting a number of years illustrates the obscurity which still covers many pathological conditions.

In the field of bacteriology much valuable work has been done, especially in investigating the infections of the gravid and puerperal uterus as well as the non-pregnant organ.

The works of von Recklinghausen and of Cullen have made us familiar with a new type of tumor—the adenomyoma of the uterine wall, which seems to have a symptomatology of its own.

One might continue indefinitely to recite advances and discoveries in this field, it is not possible in a short paper to more than mention a few—a very few—of the numberless achievements of the workers in gynaecological pathology. The progress is most striking when we compare the knowledge of today with that, of say, fifteen years ago, as evidenced by the

writings of the time. Nevertheless, a great unexplored field remains, beset with obstacles, but fascinating in its possibilities. No doubt the next decade will disclose to us such problems as the origin of dermoids and teratomata, the cause of myomata, and it may be that great goal of modern pathology, the etiology of cancer.

A REPORT ON DENYS' BOUILLON FILTRATE TUBERCULIN IN PULMONARY TUBERCULOSIS.

BY

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(Read before the Meeting of the American Institute of Homœopathy, Detroit, June 24, 1909).

THE discussion of the revival of tuberculin in the treatment of pulmonary tuberculosis would doubtless aptly form part of a paper of this nature, but the limitations of time will not permit. I will therefore confine myself to a practical report of the use of the remedy in a certain number of cases, together with the observations deducted therefrom.

The form of tuberculin employed in the following cases was that known as Denys' Tuberculin Filtrate. This preparation consists of the filtrate from the bouillon culture of the tubercle bacillus, and contains all the soluble products which the bacillus elaborates when cultivated on bouillon. It differs from the old tuberculin of Koch in that no heat is employed in its preparation.

The use of tuberculin filtrate was first employed by Karl Spengler in 1893, but more recently Professor Denys, of Louvain, Belgium, has experimented with the remedy and brought its use more prominently before the profession. In a paper presented last autumn before the International Tuberculosis Congress and subsequently before the New York County Homœopathic Medical Society, Professor Denys announced very successful results.

The tuberculin filtrate is prepared in a decimal series of five dilutions, and is administered hypodermatically. The quantity

of tuberculin in each two minims in the several dilutions is as follows:

First.—1-1000 milligramme.

Second.—1-100 milligramme.

Third.—1-10 milligramme.

Fourth.—1 milligramme.

Fifth.—10 milligrammes.

The first dose of each series is two minims. Each subsequent dose is progressively increased by two minims until twenty is reached; then the next series is commenced and run up to twenty minims; then the third series, and so on, until the five are administered. The initial dose of the first dilution, it will be observed is 154-1,000,000 gr.

It is advised that the dose be administered every third day, increasing the interval up to a week, as the stronger dilution is reached. Any reaction should be noted, and if that occurs the remedy should not be repeated until all evidences of the same have subsided. Apart from reaction, which is chiefly indicated by rise of temperature, any aggravation of symptoms is an indication for suspension or entire discontinuance of treatment,—namely, increase of malaise, or of cough or hoarseness, or the amount of sputum, or any tendency to haemorrhage. After a reaction it is well to repeat the last dose before ascending the scale of dosage.

The smallness of the initial dose is a striking feature and the keynote of the situation. The failure of tuberculin in the past we now know was due to the large size of the dose. Some experimenters administer still smaller doses, namely, .0005 mgm.

An equally important factor is the selection of the cases suitable for tuberculin treatment. Koch says: "I maintain that its efficacy as a cure is completely proved provided its application is restricted to suitable cases, *i. e.*, to those not too far advanced and not complicated by streptococci, staphylococci, pneumococci, influenza bacilli, etc." The best way of guarding against the misapplication is to employ it only in cases in which the temperature does not exceed 98.6° .

Trudeau says: "Denys and some of the Germans claim that even in acute cases good results may occasionally be expected, but my experience has been, with few exceptions, in treating patients who were apyretic or nearly so, 99.5° to 100° . The more chronic the type of the disease the better adapted the case

seems to the tuberculin treatment." My own experience points to the same conclusion,—namely, that cases with a temperature below 100° are most suitable. In addition, the nutrition must be good and there must be no serious complications.

Between November 12th and 19th, twenty-three cases in the Metropolitan Hospital were placed under this treatment. The pulse, respiration, and temperature in all were taken three times a day for one week before treatment was instituted, and a careful physical examination was made, together with radiographs of the thorax. With one exception these cases all showed advanced changes in the lung. Two left the hospital shortly after commencing treatment. The remaining twenty-one cases will, for convenience, be divided into two classes: First, those who were subsequently withdrawn from treatment; second, those who continued, and who, with one exception, are still under treatment.

The patients of the first class number ten. All have practically the same histories,—namely, at first there was some slight improvement, but at periods varying from eight to twelve weeks they seemed to lose ground, sometimes with increase of temperature. Treatment for various reasons was suspended. Two of these patients have since died.

The second class,—namely, those upon whom treatment has been systematically continued,—present the following histories:

CASE I.—F. McE. Admitted September 29, 1908. American; printer; family history negative. Moderate drinker; gonorrhoea twenty years ago; pneumonia in left side in 1906; has had a slight cough since winter of 1907. About two weeks previous to admission "caught cold," since which time the cough and expectoration has been much worse. In September, 1908, had a haemorrhage. No night sweats. Lost thirty pounds. Sputum positive. Lungs: *Right* apex, two inches, anteriorly, consolidation and dulness; prolongation of the expiratory murmur; crepitant râles, in the axillary region on a line with 8th rib; also a few sibilant râles; posteriorly, crepitant râles from 9th rib downward. Left apex, 2½ inches bronchial breathing. *Present condition*: Right lung still shows the presence of a few crepitant râles, but lower portion has cleared. Left: some bronchial breathing in apex. Has gained 14 pounds. Cough much better. Coughs very little now and only in the mornings, expectoration being much decreased and

general improvement marked. Feels well. Sputum still positive.

CASE 2. E. C. Admitted August 19, 1908. Age 52. Irish; sailmaker. Family history negative. Alcoholic habits. Chancre and gonorrhoea 32 years ago. History of cough and expectoration going back six years. Was able to work up to two months before admission. During this period lost in all 28 pounds. Was in a hospital before. So weak had to stop work. Coughs considerably, with profuse expectoration. No blood or night sweats. Lost 13 pounds. Sputum positive.

Lungs: *Right* apex, $1\frac{3}{4}$, anteriorly, consolidation to 3d rib, with dullness on percussion. Bronchophony and bronchial breathing posteriorly. Consolidation as far as third rib, with dullness, bronchial breathing, and bronchophony. *Left*, apex $\frac{1}{4}$; anteriorly, extensive consolidations. Apex involved downward as far as fourth rib; bronchial breathing apparently all over lung; crepitant râles from 2d to 4th ribs. Sputum positive. *Present condition*: General improvement. Much stronger. Cough and expectoration very much diminished. Gained 6 pounds but lost 5. Physical examination shows area of involvement somewhat less extensive, with marked decrease in area of crepitant râles. Sputum still positive.

CASE 3.—P. F., admitted July 5, 1905. Age 35. German porter; family history negative. Drank quite heavily, gonorrhoea 13 years ago; has had pneumonia and typhoid fever. First noticed loss of health about a year previous to admission, when he "caught cold"; since then has gradually failed. Cough and expectoration, while persistent, have always been moderate. No haemorrhages or night sweats. Dyspnoea on exertion. Lost thirty pounds. Sputum positive.

Lungs: *Right*, apex $1\frac{3}{4}$ inches, anteriorly, consolidation down to third rib, with dullness and bronchial breathing. Crepitant râles from 3rd to 5th rib, extending to axillary region. Vocal resonance increased on entire right side. Posteriorly—dullness to 3rd rib with bronchial breathing and crepitant râles. *Left*, apex 2 inches, crepitant râles to 3d rib; posteriorly, harsh breathing. *Present condition*: Increase of strength decided. Cough and expectoration less. Bronchial breathing in right apex less pronounced; crepitant râles disappeared. Left lung shows improvement. No crepitant râles. Cough remains the same. Sputum still positive.

CASE 4.—W. E., admitted September 25, 1908. American.

Upholsterer. Family history negative. Heavy drinker. No venereal history. First noticed loss of health five weeks before admission; loss of appetite and vomiting; cough and expectoration. No haemorrhage or night sweats.

Lungs: *Right*, apex $1\frac{1}{2}$ inches, anteriorly, dullness to 4th rib. Bronchophony and crepitant râles to 3d rib; posteriorly, dullness to 4th rib, with bronchophony to 5th. *Left*, apparently normal.

Present condition: General improvement very marked. Right lung: Râles much less pronounced, being confined for the most part to the expiratory murmur. Coughs some and expectorates a little by "hawking." Gained five pounds. Sputum still positive.

CASE 5.—E. D. Admitted September 28, 1907. Age 37. American. Peddler. Father died of asthma; mother, of pulmonary tuberculosis. No other cases of tuberculosis in family. Hard drinker. Scarlet fever in childhood; gonorrhoea six years ago. Has had a cough for the past seven years, which has gradually become worse, with moderate amount of expectoration. Haemorrhage four years ago. Has dyspnoea and night sweats. Lost 22 pounds. Sputum positive.

Lungs: *Right* apex, $1\frac{1}{2}$ inches, anteriorly, consolidation well marked, bronchial breathing to 4th rib; posteriorly, same. *Left*, apex, $1\frac{1}{2}$ inches, anteriorly, consolidation down to 2d rib. Posteriorly, the same, with dullness and bronchophony.

Present condition: Physical examination does not show much appreciable change, but cough has almost entirely disappeared. Slight expectoration. Gained nine pounds. Sputum positive.

CASE 6.—M. H. Admitted May 21, 1908. Age 48. Irish. Clerk. Family history negative. Drinks heavily at times. In October, 1906 "caught cold," and since then has coughed and expectorated. Has night sweats and dyspnoea on exertion. No haemorrhages. Lost 28 pounds. Sputum positive.

Lungs: *Right*, apex $1\frac{1}{2}$ inches, anteriorly, consolidation to 5th rib, with dullness and bronchial respiration, and bronchophony over entire right side. Crepitant râles from 4th rib to 5th rib; posteriorly, marked dullness down to 3d rib; bronchial breathing over entire side. *Left*, apex 2 inches. Slight consolidation in apex.

Present condition: Physical examination shows same signs, but not so pronounced in character. Cough much improved;

expectoration reduced to about half. General condition improved. Feels quite well; gained 5 pounds. Sputum still positive.

CASE 7.—F. J. Admitted May 10, 1906. T. D. Age 42. American. Laborer. Family history negative. Moderate drinker; no venereal disease. Illness commenced about a month previous to entrance to hospital, after severe cold caused by getting wet. Has had fever and chills occasionally, headache and vomiting, and vomiting and dyspnoea on exertion. Cough, especially at night, with profuse expectoration. Lost 7 pounds. Sputum positive.

Lungs: *Right*, apex $1\frac{3}{4}$ inches, anteriorly, consolidation down to 3d rib, as evidenced by marked bronchial breathing. Posteriorly; consolidation to 4th rib, less degree of consolidation 4th to 7th ribs. *Left*, apex $2\frac{1}{4}$; apparently normal.

Present condition: Bronchial breathing in involved lung much diminished in intensity,—extends only to the middle of the scapula. Cough gone; expectorates a little by "hawking." General condition greatly improved; gained 8 pounds.

CASE 8.—J. H. Admitted July 3, 1908. American. Age 35. Marble worker. Family history suggests tuberculosis. One brother died of same. Cause of parents' deaths not known. No alcoholic or venereal history. Illness first appeared two weeks previous to entrance, when he said he had a "severe cold," with pain in chest and cough. Had headache. Vomiting at times. No night sweats. Coughs mostly in the morning, with profuse expectoration. Says he formerly weighed 57 pounds more than he did on entrance. Sputum positive.

Lungs: *Right*, normal. *Left*, apex $1\frac{1}{2}$, consolidation of apex with dullness down to 2d rib anteriorly and to the 3d rib posteriorly. Prolongation of expiratory murmur and bronchial breathing.

Present condition: Left apex has almost cleared; only discernible abnormal condition is slight harshness. Cough has disappeared. There remains, however, a slight hack. Sputum after three examinations negative, but after fourth positive. Gained seven pounds in weight.

CASE 9.—A. L. Admitted June 30, 1908. Irish. Laborer. Family history negative. Heavy drinker for past twenty years. Gonorrhoea 15 years ago. First observed loss of health six months previous to admission. "Caught severe cold," which was followed by haemorrhage. Improved and returned to work

for a short time, then came to Metropolitan. Coughs mostly at night. Expectoration not very profuse. No night sweats. Lost 26 pounds. Sputum positive.

Lungs: *Right*, apparently in good condition; *Left*, apex $1\frac{3}{4}$ inches, anteriorly, consolidation down to 4th rib, as evidenced by dullness on percussion, and bronchial breathing. Posteriorly, crepitant râles in apex down to 5th rib.

Present condition: Cough almost gone; amount of crepitant râles much less. General condition much improved. Gained 15 pounds. Sputum still negative.

CASE 10.—R. A. Admitted October 1, 1909. Age 55. Irish. Waiter. Family history negative. Hard drinker; had gonorrhoea and chancre 22 years ago. Pleurisy twice, the last time five years previous to admission. First noted loss of health about five years ago, following last attack of pleurisy, which he said involved both sides. Cough at first dry and hacking; later accompanied by profuse expectoration. Has some dyspnoea now on exertion. No night sweats. Lost 23 pounds in weight. Sputum positive.

Lungs: *Right*, apex $1\frac{3}{4}$; anteriorly, consolidation with dullness and bronchial breathing down to 3d rib. No râles. Posteriorly, slight bronchophony over entire lung. *Left*, normal.

Present condition: Lung does not show much change, but there has been a general marked improvement. Cough and expectoration much less, and gain of nine pounds in weight.

CASE 11.—I. D. Admitted July 22, 1908. Age 33. American. Waiter. Family history negative. Moderate drinker; no venereal history. First noticed loss of health eight months previous to admission to hospital. Weakness, accompanied by cough and a moderate amount of expectoration. Sharp pains in chest. Was in another hospital for five months previous to admission to Metropolitan. Has loose cough, marked dyspnoea, and general debility. No chills or fever; no haemorrhage. Sputum positive. Sputum is sometimes bloody. Lost 41 pounds.

Lungs: *Right*, apex $1\frac{1}{2}$ inches; anteriorly, dullness to the 3d rib with bronchial breathing and a few crepitant râles under clavicle; posteriorly, dullness and crepitant râles down to 4th rib. *Left*, apex $1\frac{3}{4}$ inches; anteriorly, dullness and crepitant râles down to 3d rib; posteriorly, dullness same.

Present condition: General condition very much improved as to strength; cough gone; expectoration—a little in the morn-

ing, hawking it up. Crepitant râles have disappeared; bronchial breathing less pronounced in base of right lung. Gained 8 pounds. Sputum still positive.

CASE 12.—R. O. Admitted August 1, 1908. Age 41. German. Coachman. No family history of tuberculosis. Moderate drinker. Gonorrhoea 22 years ago. Two operations for rectal fistulae, five and four years ago respectively. Illness dates back four years ago when he "caught cold," accompanied by painful cough with profuse expectoration, followed by three copious haemorrhages. At present feels weak, has shortness of breath, cough, and expectoration marked. No night sweats. Vomits sometimes after eating and coughing. Has lost 15 pounds. Sputum positive.

Lungs: *Right*, apex $2\frac{1}{2}$ inches. Anteriorly, negative. Posteriorly, sonorous râles. *Left*, apex 2 inches. Consolidation anteriorly, bronchial breathing, subcrepitant râles to 2d rib. Exaggerated bronchial breathing in left base.

Present condition: Feels much better, but expectoration not much diminished. Râles in left side have disappeared; on right, there appears to be some harsh breathing sounds. Sputum negative.

Three weeks from beginning of treatment patient had a haemorrhage. Treatment was accordingly discontinued and resumed after an interval of 17 days, commencing with series No. 1. Since then patient has continued to improve.

CASE 13.—J. D. Admitted March 19, 1906. Age 60. Irish. Laborer. Drinker. Family history negative. No venereal history. About a month previous to admission got wet and had chills, with fever and pain in side. Cough and expectoration followed. Lost 20 pounds. Sputum positive.

Lungs: *Right*, apex 2 inches, anteriorly feeble respiratory murmurs over surface of chest. Posteriorly, same condition. *Left*, apex $1\frac{1}{4}$ inches. Anteriorly, marked consolidation, as evidenced by dullness on percussion. Bronchophony, bronchial breathing down to 3d rib. Posteriorly, feeble respiratory murmur. No râles.

Present condition: Cough better, expectoration less, bronchial breathing about same. Weight same. Patient on May 20th was seized with haemorrhage; tuberculin treatment suspended.

Of these thirteen cases it will be observed that nine show very decided improvement; three much improvement, but less de-

cided, and one manifested no improvement. Six of the much improved class, namely Nos. 1, 4, 5, 7, 9, 10, if kept under proper hygienic conditions, apparently warrant the hope that in them the disease would become arrested. In Nos. 8 and 9 the disease is nearly arrested. In regard to the others of this class there is no doubt that the process of the disease has been, for a time at least, retarded.

It is noticeable that even in the cases in the most favorable conditions the sputum, with one exception, is positive. The sputum in the other cases is raised by a "hawking" rather than a cough, and that only in the morning. An interesting feature which was observed in all cases was the temperature line. Apart from the reaction elevations which occasionally occurred after injection, the line after the second week became more irregular; this continued for several weeks, and then it became much more regular. After the second dilution of the tuberculin, and in the latter part of the administration of the same, the intervals of injection were increased to four and five days, and finally all to a week.

It might perhaps be urged that any given number of cases of pulmonary tuberculosis cases, if placed under improved hygienic conditions would show for a time some improvement. While this is true, the criticism would not apply to these cases, at least the greater portion, for the histories show that many had been in the hospital for a considerable time, that is under the same conditions and with the same surroundings before treatment. Thus Nos. 8 and 9 were each in the hospital one year and four months before treatment, and while they had gained some after entrance, they had remained in *statu quo* for a year, with a tendency to decline. Nos. 2 and 3 had been in the institution three years each; No. 7, 3 years and 6 months; No. 4, 1 year and 3 months, and No. 13, the unfavorable case, for 3 years. The cases with the briefest stay before treatment are Nos. 1 and 4, 2 months each; 9, 4 months, and 12, 1 month.

With so limited a number of cases and so brief a period of observation,—7 months,—I feel that to attempt to draw positive conclusions would be presumptuous. At the same time, it seems to me that there is sufficient evidence to corroborate the more extended observations of others,—namely, that tuberculin, as Koch says, is effective if restricted to still curable cases. Furthermore, I regard these observations as corroborating the following indications for the use of the remedy.

1. That the initial doses should be small, not more than 1,100th of a milligramme.

2. That the doses should not be raised too rapidly. The rule of intervals of three days during the first series might be prolonged to four or five days; and after the second series is reached injections are best given once a week—not more frequently.

3. When there has been a reaction, do not give the next dose until all evidences of the same have subsided.

4. After a reaction, general or local, repeat the last doses before increasing.

5. Malaise, headache, loss of appetite, increase of cough, raising blood, are evidences of the limitation of the patient's tolerance, and call for a suspension of treatment, or limitation of doses. If these symptoms return on the resumption of the treatment, even under the minute doses, treatment should be abandoned.

6. Cases suited to treatment are those without fever, or at least not above 100 degrees, fair nutrition, and chronic in type.

In closing, I must express my thanks and appreciation to Dr. Charles A. Ley, Dr. W. A. Meierding, and Dr. M. H. Powers, of the Metropolitan Hospital House Staff, for their co-operation, interest and for their valued assistance in the application of the treatment.

HOMŒOPATHY—A SYSTEM OF RATIONAL THERAPEUTICS: ITS RIGHT TO SURVIVE.

BY

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OUR much respected President has done me the honor to insist that I shall take up the story of Homœopathy, and present it to this Society as it appears to me after a somewhat extended and consistent practice of it for a period of forty years.

To most of you, this will be more than a thrice told tale, but every presentation of the truth must serve to confirm the faith of some wavering believer or awaken the interest of the indifferent or skeptical.

Let us consider in due course, what are the essential princi-

ples of our system of Therapeutics, their claim to belief as scientific verities, and such being the case, the propriety of continuing them as living, practical and distinct forces in the Science and Art of Medicine. In other words, Is Homœopathy a system of rational therapeutics, and as such, has it a right to survive?

I make use of the term "rational" advisedly, for it was Hahnemann himself who first applied it to the system of therapeutics which he had evolved, and to which he applied the name "Rational Medicine." This was the first time in the history of the healing art that it had assumed sufficient definiteness of form, to justify the scientific world in recognizing it as a rational system of therapeutics.

Doubtless, Hahnemann, who was a scholar of rarest erudition, was entirely familiar with that early exposition of logic, called by its author, Aristotle, *The Organon*, and which proposed to extend the confines of human knowledge by the experience of *reason*. None the less, also, was he master of that guide to the acquirement of knowledge by the more certain method of practical research and induction which Bacon introduced in his *No-vum Organum*.

Familiar, I say, with both of these, and imbued with the spirit of both, Hahnemann gave to the world that incomparable volume, "*The Organon of the Healing Art*," reducing to concrete form, the facts which had come to his knowledge in his search after truth, and which he had subjected to the methods of severest induction, as well as the most rigid requirements of logic and scientific formula.

We are quite willing to admit that probably all of what might be called the unessential theories and speculations regarding disease and drug action contained in Hahnemann's writings, are not compatible with modern scientific investigation, and, I dare say, there are few even of his most devoted followers who would claim infallibility for him, but it is also true, that compared with the theories and practices of his compeers at that time, Hahnemann was a full century in advance of the most advanced of them.

And further, that one by one, have the deductions and even speculations of Hahnemann turned out to be the very truth, as proved by the startling revelations of modern science.

It is my purpose now to lay before you some of the proofs of this contention, however trite and however familiar. In do-

ing this, I may trespass on your patience to an unjustifiable extent, and perhaps what is worse, make use of the laborious accumulations in the same field of many of my indulgent colleagues, whose pardon I crave, and to whom I make cordial acknowledgment.

But let us first consider for a moment the *status medicus* of the period in which Hahnemann lived, that we may the better realize by deadly parallel the vast changes he brought about in the treatment of diseases by his discoveries and masterful deductions. It is historically true that medical practice at this time was without chart or compass, consisting mainly of the *ipse dixit* of this man or that, and, however well meaning their efforts were, to all intents and purposes they were in entire accord with the operations of the venerable gentleman with the scythe.

The schools talked of Hippocrates, Galen and Celsus, as if medicine had made no appreciable advance since their day, as was indeed well-nigh the case. But no less a modern authority than John Syre Bristow before the British Medical Association has indicated the state of scientific (?) medicine at the close of the 18th century, in language not to be misunderstood, and I introduce it here as an authoritative and forceful statement of the facts. He says:

“He (Hahnemann) saw through the prevalent therapeutic absurdities and impostures of the day; he laughed to scorn the complicated and loathsome nostrums which, even at that time, disgraced the pharmacopœias; and he exposed with no little skill and success, the emptiness and worthlessness of most of the therapeutical systems which then and theretofore prevailed.”

This manly tribute from a recognized leader in the dominant school, comes with peculiar grace, and might be imitated with increasing propriety by his colleagues and successors as modern science continues to unfold the harmony of its revelations with Hahnemann's century-old deductions.

Examples could be endlessly multiplied showing the pitiable condition of medical practice—senseless and destructive of human life—but the scholarly Dudgeon, in few words, gives us the conclusion of the whole matter.

He says: “From want of a guiding principle for ascertaining the curative properties of medicines, therapeutics had degenerated into a senseless farrago of uncleanness and absur-

dity, a *caput mortuum* of inert rubbish, a cesspool of filthy abominations, and a torture chamber of painful and noxious appliances. But, though some of the grosser elements were discarded by the contemporaries of Hahnemann, the therapeutics of his time, and for many years afterwards, remained as irrational as ever."

We add to this a word from the genial Oliver Wendell Holmes, genial to everything save the new school. He refers to the past of his own school as a "burnt district." Here and there a tree may be standing, but the eye ranges over charred and lifeless trunks with their feet in the ashes of their leafy raiment." *

This, then, was the condition of medicine when Hahnemann, like the shepherd lad of Bethlehem, went forth single-handed and alone to battle with the giant errors which until then had prevailed. Had Hahnemann but exposed and overturned entrenched error alone, he would be entitled to all the honor a deliverer might receive from a grateful people, but he did vastly more than this, he founded a system of scientific therapeutics, based on natural law, as we believe, written by the hand of Almighty God.

It will be entirely pertinent at this time to inquire, What does modern medicine offer in the way of systematic therapeutics, and what relation does it bear to homœopathy?

Gladly we admit, not the destructive and abominable measures of Hahnemann's day and for nearly a half century later, —not the drugging and shedding of human blood (the leading medical journal of the world is still called *The Lancet*) as counted for science in that halcyon period, but distinctly included under two propoitions, briefly stated we have *Medical Nihilism* and *Homœopathy*, confirmed.

No judgment can be more historically accurate than that which is founded on that *ad hominem* principle of the Sacred Code, "Out of thine own mouth will I judge thee." (Luke xlx, v. 22.)

To this end, I will first offer in evidence a deliverance of Dr. Osler, recognized as the present leader of modern medicine, who says, "A new school has arisen which cares nothing for homœopathy or so-called allopathy, but has firm faith in a few good well-tried drugs, little or none in the great mass of medi-

**Boston Medical Journal*, 1882, Vol. CVL., p. 505.

cine still in general use." Again he remarks, "He is the best physician who knows the worthlessness of most medicines." We feel like using the homely phrase, "Speak for yourself, John."

Dr. Billings, recently president of the American Medical Association, remarks, "Drugs, with the exception of quinine in malaria, and mercury in syphilis are valueless as cures." Then follows Dr. Cabot, of Harvard Medical School, in an address (to his credit) before the Boston Homœopathic Medical Society, who said, "I doubt if you gentlemen realize how large a proportion of our patients are treated without any drugs at all, and how little faith we have to-day in the curative power of drugs." In fact, the present nihilistic attitude of medicine has been summed up by a member of the dominant school as "Osler's black, hopeless, helpless, therapeutic pessimism."

It seems to me one need go no further to substantiate my first proposition, that the new medicine as announced by its sponsors, is simple nihilism, except as pertains to the two or three drugs mentioned, which I shall show, are used in entire accordance with the principles of homœopathy.

The proofs are overwhelming. Billings, just quoted, might easily have discovered why these two drugs, which compose his whole working materia medica, are so successful. The answer is furnished in Potters' (old school) *Materia Medica and Therapeutics*, p. 342, in which he fortifies his own opinion on the action of mercury, by calling in the testimony of a much quoted author on materia medica, as follows, "Indeed, as Dr. Ringer said in the earlier editions of his *Handbook of Therapeutics*, the phenomena produced by mercury are singularly similar to those which result from syphilis, and the serious symptoms known as secondary and tertiary syphilis can be produced both by syphilis and mercury."

Why not say, gentlemen, in common honesty, that "this drug is absolutely homœopathic to the disease it cures," and we would supplement your statement with the declaration that this is true of all drugs in their relation to disease. Men of the intelligence of Drs. Billings, Potter and Ringer should have recognized this instantly.

As to the second member admitted to this select pharmacopœa, quinine, it is enough to note that it was the singular similarity of the effects of this drug to the malarial disease it was heralded to cure, that was responsible for the discovery of the

homœopathic law itself. So thus far in our inquiry, we have encountered nothing but homœopathy out and out.

Well, then, let us see what principle underlies the major section of the new medicine as practiced to-day with such thrilling enthusiasm by our colleagues of the dominant school, namely, the employment of vaccines or serums.

Let us note, first, however, that cowpox vaccination for or against smallpox, although not of recent origin, is *homœopathy pure and simple*, and its efficacy can be explained on no other theory or principle.

But to proceed. It was Pasteur, although not a medical man at all, who laid the foundation for all of this modern therapy, save vaccination. Upon the announcement of Pasteur's discoveries the medical profession, as we well know, started on a wild hunt for germicides, but with very indifferent success. After much hard work in the laboratory, however, with confirmatory clinical observations, something like a working basis has been evolved. Theobald Smith, of Harvard, observes (Journal of A. M. A., 1906): "We have not only retraced our steps to the whole bacillus, but even to the living attenuated bacillus to the old first principle of Pasteur." Now, my colleagues, What is this principle? Let no less an authority than Professor von Behring, of Berlin, answer this momentous question. This fearless savant, this imperial seeker after truth, answers it thus:

"In spite of all scientific speculations and experiments regarding smallpox vaccination, Jenner's discovery remained a stumbling block in medicine till the biochemically thinking Pasteur, devoid of all medical classroom knowledge, traced the origin of this therapeutic block to a principle which cannot be better characterized than by Hahnemann's word, *homœopathic*. Indeed, what else causes the epidemiological immunity in sheep, vaccinated against anthrax, but the influence previously exerted by a virus *similar* in character to that of the fatal anthrax virus? And by what technical term could we more appropriately speak of this influence exerted by a similar virus than by Hahnemann's word, homœopathy." Von Behring, in the same article further says: "I am touching here upon a subject anathematized until recently by medical pedantry; but if I am to present these in historical illumination, dogmatic imprecations must not deter me. They must no more deter me now than they did thirteen years ago when I demonstrated before

the Berlin Physiological Society the immunizing action of my tetanus antitoxin in infinitesimal dilution." And further on the discoverer of diphtheria antitoxin concludes: "If I had set myself the task of rendering an incurable disease curable by artificial means, and should find that only the road of homœopathy led to my goal, I assure you dogmatic considerations would never deter me from taking that road."

These brave admissions, that the new therapy is founded on the law of similars, is matched by the generous words of another brave and gifted man, Dr. Cabot, of Harvard Medical School. He says, in a defense of his own craft: "It has been just to charge our school in the past with the absence of any principle or law of therapeutics, and to contrast the order and system of homœopathic treatment with the helter skelter, *omium gatherum* of merely empirical methods. But the contrast is no longer just. Homœopathy has a well-defined law which has been established empirically and is constantly and properly being subjected to re-verification through careful experiments. We also, at last, after much groping and long years of work, obtained a law of therapeutics, a principle of therapeutic effort, namely, *the principle of immunity*—natural and of the means by which it may be attained, augmented, protected."

It is generous to accord us our claim to natural law as the basis of our therapeutics, but as pointed out by McConkey, of San Francisco, in his admirable paper, the credit of this new principle must be given to Pasteur, a scientist, and not a member of any medical school, and as shown above by von Behring, is simply the law of similars, as discovered by one Samuel Hahnemann.

But there are other noble men, who dare admit the truth, and I shall quote but one more in this connection. Dr. Amalio Gimeno, Professor of Therapeutics in the Faculty of Medicine in Madrid, and former Minister of Public Instruction, has recently issued the following remarkable statement: "As the author of a treatise on therapeutics that I published twenty-five years ago at Valencia, which became classic in the Spanish Faculties, I deplore sincerely having consecrated several pages to unjust attacks against Hahnemann and his disciples, and I would like to be able to-day, to tear these pages from my book. Modern discoveries, however, will charge themselves with the care of correcting them. It is most proper that we should ven-

erate the grand figure of Hahnemann who discovered that which subsequent events sanctioned." It has truly come to pass that modern discoveries are correcting the unjust estimate of Hahnemann and homœopathy, by proving that modern therapeutics, in so far as they are successful, are founded on the law of similars.

We must not fail to make our acknowledgments and express our gratitude to the earnest, fearless men who have extended the confines of our knowledge along practically new lines, and have been manly enough in many notable instances to admit that the meaning of it all is a confirmation of this law of similars.

Having mentioned something of the state of medicine in Hahnemann's time, and the present day development, it logically follows that we should now consider our own cause from our own point of view, and this we shall do quite briefly.

We are here to-day to affirm that the great central truths brought to light by Hahnemann and laboriously developed by him, not as a single discovery, but as a result of years of patient experimentation and inductive reasoning, is a coherent system of medicine founded on natural law.

We must, in the beginning, clearly distinguish the difference between the Science and the Art of Medicine. Dr. Wm. Boericke, in an excellent paper, recently published, has also called our attention to the necessity for this.

The *science* of homœopathy or of medicine, if you please, has for its foundation a definite principle fairly well expressed by the formula *similia similibus curantur*. It is pertinent to inquire, why should this be called a *law* of cure. We answer, because repeated experiments on the healthy human body with drugs, establishes the fact that they produce symptoms or conditions precisely similar to the symptoms and conditions which we find in disease. That this is true not of mercury and quinine alone, or any other one or two drugs, but of all drugs. As a striking example of the similarity of drug effects to that of disease, I will only mention the well known similarity of the poison ivy to erysipelas. But this is not all: Many persons who have been poisoned with the ivy, assert that for years after the original poisoning they have recurrence of the eruption. We know this is also true of erysipelas, showing how remarkably the effects of drugs simulate or correspond with those of disease.

What more likely or more reasonable than that this inherent and persistent quality in drugs and medical agencies in general, is the key and guide to their application to disease. In individual cases, from Hypocrates down to Billings and Ringer and Osler this has been admitted, but it was Hahnemann alone who, by methods of science and philosophy, demonstrated that it was a general truth, as applied to all drugs.

Secondly, the truth of this cardinal generalization has been tested and affirmed by thousands of reputable practitioners during the last hundred years, and is susceptible of proof by any competent observer at any time.

The Science of Homœopathy, therefore, rests upon the basis of natural law.

The practice of homœopathy, however, as of any system of medicine, is distinctly an art, and as practitioners of a scientific method we follow, or should follow, the rule of practice evolved by Hahnemann (and it is the only way he ever expressed it), namely, *similia similibus curantur* "Let likes be treated by likes." Right here the difficulty lies, "Art is long," and in this case the difficulties in the way are great. A *Materia Medica* in its broadest sense, must not only be created, but mastered, and one must have the ability to intelligently use it. Wanting in this, many a practitioner even when a firm believer in homœopathy as a science, fails in the application of it as an art, and is driven to the use of all sorts of palliatives and adjuvants, as a consequence. The creation of a *Materia Medica* was a great work. Following the suggestion of the distinguished Albrecht, von Haller, Hahnemann proceeded to find the genuine sphere of drug action by provings on the healthy human organism, and the correctness of this method is now freely admitted by scientific men of all shades of medical opinion. We find a confirmation of this necessity in the experiments reported by Vaughn and Novy, p. 26, with regard to the action of bacteria, "A given bacterium may not multiply in the blood of a dog, and failure to do so is by no means proof that the same organism might not cause disease in man." This is also true of drugs, and hence the necessity pointed out by Haller, and carried out by Hahnemann, for the creation of a *Materia Medica* founded on the proving of drugs on healthy human beings.

I mention another corollary quite necessary to the successful application of our Art, and that is the preparation and proper method of applying drugs.

Hahnemann early found that the administration of crude drugs, when in accordance with the law of similars, was not only ineffective but actually injurious. His experiments and deductions led to the discovery that trituration and dilution greatly increased the medicinal quality of drugs. This generalization has been adopted by his followers as a rule, but late scientific investigation confirms this also. Our Dean Copeland has gone into this subject thoroughly, and although I do not quite agree that the effect of infinitesimal doses upon ultimate cells is chemical, rather than vital, still it is most interesting to observe the attention given by modern scientists to the wonderful power of infinitesimals. I cannot refrain from quoting Dr. Cabot once more, referring to the use of tuberculin. "The poison of tuberculosis which can produce some of the symptoms of tuberculosis is here applied in small doses for the cure of tuberculosis through the production of immunity, or resisting power in the tissues. Surely, (he says) this is a case of *similia similibus curantur*, as homœopathic writers have pointed out. The use of bacterial vaccines in infectious diseases recently produced by A. E. Wright, is distinctly homœopathic. But the revival of tuberculin therapy within the past ten years, after its abandonment in 1890, illustrates the victory of another homœopathic doctrine within our school. I mean the doctrine of the occasional utility of very minute doses. What dose does he (Trudeau) use? Not the 10 mg. often employed in the early nineties, not even the 1 mg. or the $\frac{1}{2}$ mg. recommended later. At present he begins his treatment in non-febrile cases with one ten-thousandth of a mg. and in febrile cases with one one-hundredth-thousandth of a mg. What fixes this dose? Precisely the homœopathic principle, viz., to produce a definite good effect without any observable ill effects.

Much more to the same purpose from highest authorities could be added, but time and space forbid. Enough to know that *all modern research reveals and confirms the potency of imponderables*.

How medicines, especially infinitesimals, act, has been a bone of contention always. We are somewhat familiar with Hahnemann's explanation, based practically on the vitalist theory, and he has many able supporters to this day. We take for granted that disease is, at least primarily, and from whatever cause, a disturbance of function, as Hahnemann, in 1813 declared, *i. e.*, "as the condition of the organism and its healthy

state depend solely on the state of life which animates it, in like manner, it follows that the altered state, which we term disease," etc., etc. This principle is confirmed nearly a century later by the founder of cellular pathology, the great Virchow, when he announced the doctrine, as late as 1897, that "pathology is but a branch of biology, *i. e., disease is life under altered conditions.*"

Whether medicines act on the organism chemically or not, we may be quite sure that the "state of the life that animates it" is an important factor. The once familiar phenomenon of the fly blister, might well illustrate this truth. The application of the Spanish fly, as was often observed, to the person whose vitality was well up to the standard, was quickly followed by the desired blister; when the vitality was at a low ebb, the expression was, "it does not draw well"; and when life was extinct there was no effect at all. The chemical composition of the plaster was the same and of the body surface remained the same.

But it is most interesting to note some modern efforts to explain the *rationale* of disease producing agencies and remedial measures as well.

The bacteriologist affirms, that diseases are caused by the toxins produced by the active bacterial germs on receptive cells.

That toxins are formed in plants in a corresponding way, is now strongly intimated by competent authority, as follows: "Poisons may be produced by the cellular activity of bacteria much the same way as morphia is formed in the poppy." (Vaughn and Novy, Cellular Toxins, p. 22, quoted by Dr. Dean Smith, of Ann Arbor.)

Now, while the eminent gentlemen just quoted, and their fellow scientists, Wasserman, Weigert, Cushney, *et al.*, are endeavoring to find a reasonable hypothesis for the action of poisons, and while it may be found that disease germs act, let us say by the production of toxins, or disturbed cell chains, (Erllich) or what else, let us "thank God and take courage," that drugs and other effective agencies do produce on the human organism a reactionary impulse toward health, and of this we have ample proof.

It does not follow, in order to be a thorough believer in the Science and Art of Homœopathy, that one must accept all of Hahnemann's theories. The exact amount or method of dilution may properly be questioned, yet we need not hesitate to accept the fact, that trituration and dilution do increase the

curative power of drugs. We need not agree that the thirtieth is the only, or even the best dilution, nor is it necessary to believe that repeated succussion without dilution is all that is necessary to develop the curative power of a drug. Jenichen, we find, prepared his four-thousandth dilution by succussing the fourth, four thousand times, and there have been other honest enthusiasts whose pharmaceutical methods have been equally misleading, and at variance with Hahnemann's careful instructions.

The minute doses of homœopathy have ever been the stumbling block to its adoption, especially after the germ theory (which was foretold by Hahnemann in discussing the probable cause of cholera) was propounded by Pasteur. For a time the germicide was the only thing in the treatment of disease, and if so, to what purpose was the infinitesimal dose of homœopathy? This germicide method, however, has been short lived, and the serum therapy in infinitesimal doses based on the more rational principle of *similia*, is now in the ascendant.

No one, for a moment, disputes the self-evident fact that the healing art embraces much more than what has been called "internal medicine." All freely admit that there are, in addition to the mechanical branches surgery and obstetrics, many ancient and modern systems and devices available, and of more or less merit. Hydrotherapeutics, electrotherapeutics, phototherapeutics, especially the X-ray; massage, gymnastics, with their modern development, osteopathy; the over-worked dietetics; psychotherapeutics; *et hoc genus omne*, all have a more or less important place in modern therapeutics. But even here, homœopathy supplements and aids the honest physician. Who will deny the invaluable assistance afforded the surgeon and obstetrician, in controlling many of the complications which arise?

Further than this, our guiding therapeutic principle is of inestimable value in directing the use of heat and cold, of water, the X-ray, and even mental therapy. Shakespeare says, "and this news which would have made me sick, being sick, hath in some measure made me well." But the most astonishing development in this direction has been obtained in the use of the X-ray. The literature of this method contains many examples illustrating the law of similars. I am informed by the eminent X-rayist of Pittsburgh, Dr. Johnston, confirmed by our own Dr. Pond, that he has seen many cases of epithelioma and other

skin diseases produced by the use of the X-ray, and he and his colleagues have, over and over again, demonstrated the curative effects of what might be called the diluted or mild application of the ray.

So we may conclude, that as science opens up new vistas to our astonished vision, she reveals new and ever useful additions to our *Armamentarium Medicum*, and further confirmation of Nature's law, the intelligent application of which is for the healing of the nations."

In a desultory way I have touched on the essential principles of Homœopathy, and may have made plain that they are founded on reason, established by all the requirement of scientific assent.

I feel justified, therefore, in the claim that Homœopathy is a system of rational therapeutics; that, in the light of modern research, its cardinal principles have been vindicated, and it has stood the practical test of over a hundred years at the hands of thousands of qualified practitioners, and in the experience of tens of thousands of grateful patients.

I even go further than this: I assert without fear of successful contradiction, that notwithstanding the brilliant array of medical heroes from Aesculapius down, there has never been presented to the world a single method of medical practice based on scientific formula, until Hahnemann elaborated on a foundation of natural law a system of rational therapeutics.

This being established, not by my poor words, but by the accumulated testimony of many much better qualified to speak, we may now inquire, has the time arrived, or will it ever arrive, when Homœopathy should be swallowed up in the *omnium gatherum* of general medicine; and this without recognition, or even credit for the modifying influence, direct and indirect, that it has ever exerted on the practice of the healing art? Shall we ignore the benign influence it has had on former destructive methods resulting in the saving of tens of thousands of human lives?

I put it to you, my colleagues, Has homœopathy, as a system of therapeutics, a right to survive? I feel sure you join me in an emphatic affirmative!

THE MERCURIUS MUCOUS MEMBRANES AND COMPARISONS.

BY

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(Read before the Homœopathic Medical Society of the State of Pennsylvania, September, 1909).

I HAVE been asked to write a paper on "The Mercurius Mucous Membranes and Comparisons." The vastness of this subject makes it impossible to present a compilation that would do the matter justice in the limits of a paper. It practically comprehends every mucous membrane disease of every mucous membrane of the body. We must, therefore, define some limitation for ourselves. The *dysentery* of mercurius and comparisons have been suggested to me, and it shall be the real theme of this paper, treated from the standpoint of the materia medicist.

In the first place, mercurius would include no less than ten distinct remedies, all of which have a very similar general action, more or less intense, but each of which possesses a distinct individuality. We shall therefore limit this paper to *merc. sol. and merc. viv.*, whose similarity is so great that no distinction is usually made.

Again, a mucous membrane study is apt to resolve itself into a physiologico-pathological consideration,—a very useful help for learning materia medica, being explanatory of the presence of many symptoms, but this might not satisfy some other and probably more characteristic symptoms: *e. g.*, the night aggravation of *merc. sol.*, or the classical distinction of the right-sided sore throat of yellow iodide, and the left-sided sore throat of red iodide, symptoms that must enter into a comprehension of the "genius" of these remedies. Furthermore, the latter fact emphasizes the existence of a distinct individuality for each and every one of the mercuries. We shall, therefore, limit the paper arbitrarily to the *dysentery of merc. sol. and merc. viv. and comparisons*.

A study of the mercurius dysentery, brought into relief by comparison with the dysentery of other remedies accomplishes the ulterior end of learning our materia medica and may I be pardoned for any corresponding digression from the purpose of

our chairman to make this a pure mucous membrane symposium.

A further prefatory explanation is necessary. The name of a disease, or a pathological name used to designate groups of symptoms which have frequently been observed in combination, is used only for the purpose we here intend, viz., to aid in individualizing our remedy. The old warning must be sounded, however, that homœopathy does not treat diseases, it is guided by the manifestations of disease, viz., symptoms. It, by no means, disregards pathology, but it does discountenance specific medication for pathological abstract names. We must go still farther and remember the fact that a mucous membrane condition may be cured by a remedy not at all classed among the mucous membrane remedies, and never suggested, but by an accidental similarity of symptoms whose corresponding pathological state has not been produced in its provings.

The classical symptoms of dysentery may be enumerated as follows, regardless as to whether catarrhal, amœbic, diphtheritic or chronic in variety:

Stools: mucus, muco-pus blood;
or fluid and yellowish-gray;
or fluid and frothy, or semi-fluid, yellowish or
brown, sometimes with mucus and undigested
food, blood, pus or necrotic shreds;

Frequent generally;

Scanty or profuse;

Tenesmus;

Tormina;

Tenderness along colon;

Abdomen flat and resistant;

Flatulence;

Tongue furred at first;

red and smooth and glazed later;

or dry and fissured;

Fever;

Thirst;

Nausea and vomiting;

Pulse frequent;

Rapid emaciation;

Marked prostration.

Any combination of these symptoms, however fragmentary may be dysentery.

Now, remedies that have been known to produce such symptoms, however fragmentarily, might be indicated for the cure of dysentery at some time or other. The remedies that are suggested by these symptoms, however, are: merc. cor., hepar, nitric ac., phos., puls., and sul. which would be thought of in comparing the remedies most closely allied to merc. in their entirety; and acon., apis, arg. n., ars., bapt., bell., bry., canth., caps., carb. v., colo., dulc., fer. p., ipec., kali bi., lyc., mag., c., nux v., rhus t., verat. which are classed as mucous membrane remedies; and aesc., aloë, arn., cham., china, cist., colch., collins., cupr., ham., iris, lach., plumb., podol., rhus gl., zinc, having recognized dysentery symptom-combinations. Indeed, every remedy of our materia medica could be incorporated into this study, contrasting their difference, because the homœopathic idea would not make it inconsistent to employ any known remedy to dysentery, if a similarity of symptoms were to arise.

Comparing the essential features of these, not with each other but with the merc. sol. dysentery solely, should make a comprehension of the peculiar dysentery of merc. sol. a distinct fixture in the memory, if anything ever can do so, and should furnish us with excellent partial pictures of the various remedies so compared. This is the object.

The question arises how to present these comparisons so as to enlist your interest, make it instructive, and keep it from having a soporific effect. Contrary to the opinion of our more skillful prescribers as well as the aspersions of the old school, the expert physiological prescriber, the user of the combination tablet and the confirmed empiricist is not necessarily a non-believer in the law of similia at all. At heart he may be as "true blue" in his belief as the most eligible I. H. A. candidate but his knowledge is deficient. He would like to learn, remember and apply the homœopathic materia medica if only he could acquire a knowledge of the "genius" of the remedies. To help in overcoming this apparently insurmountable barrier and most important obstacle to the still more general adoption of homœopathy, we shall still further limit this paper to a mere elementary consideration of the dysentery of merc. s. and merc. v. for the purpose of developing the pictures of the various remedies.

The analysis and classification of the dysentery symptoms of the various remedies is patterned after Hering's "saw-buck" method of classification for prescribing purposes. On ac-

count of the complex nature of our subject "dysentery," which has been suggested for our consideration, our modification is arbitrarily adapted for the sake of convenience. Our object is not now to amplify the excellent method of general materia medica study that this suggests; for whether any single symptom, condition, altered function, or disease of any remedy in our materia medica be taken as the theme the same system may be applied. In analyzing the dysentery symptoms, the stool, rectum, anus, abdomen, stomach and mouth, in other words, the symptoms of the whole digestive tract are classified in the first column, and all the symptoms as concomitants in column three. The dysentery of mercurius is given, more or less complete, from the elementary standpoint of only grand characteristic symptoms, *i. e.*, not only symptoms that have very frequently occurred in the provers, and have very frequently been verified, but using only the most universally accepted of these "key-notes." The other remedies are each compared with these only. Omission of symptoms in the comparisons does not signify that they are necessarily absent in the remedy—such characteristic absence would be noted as a part of the picture.

To make the size of this paper acceptable we shall therefore compare with mercurius sol, and viv., their nearest analogues and the mucous membrane dysentery remedies merely.

(See pages 852-856.)

MERCURIUS DYSENTERY COMPARISONS.				
REM.	SENSATION. ALTERED FUNCTION. LOCALITY.	CONDITION OR MODALITIES.	CONCOMITANTS.	MEMORANDA DIFFERENTIAL HINTS.
MERC. S. AND MERC. V.	<p>A. Stools: slimy, bloody, green.</p> <p>B. Tenesmus in rectum</p> <p>C. Cannot finish" sensation.</p> <p>D. Blood in stools.</p> <p>E. Prolapsus ani.</p> <p>F. Bad taste, foul breath, salivation.</p> <p>G. Tongue large, flabby, and shows imprint of teeth.</p>	<p>H. } < during and after S.</p> <p>I. } < night.</p> <p>J. } < heat of bed.</p> <p>K. } < during perspiration.</p>	<p>L. Constant desire to urinate, but little is passed.</p> <p>M. Proluse perspiration that does not stop.</p> <p>N. Offensive sweat.</p> <p>O. Chills after S.</p> <p>P. Weakness after S.</p> <p>Q. Trembling.</p> <p>R. Rheumatic pains in limbs.</p>	<p>S. "The more blood, the better indicated."</p> <p>T. Sporadic Dysentery rather than malignant.</p> <p>DIFFERENTIAL HINT: "Intensity rather than quality of symptoms differentiates this remedy from others. It differs negatively from others in its remedies, wanting characteristics they possess."</p>
MERC. C.	<p>A. Stools: chiefly mucus tinged with blood, and scanty.</p> <p>B. Tenesmus very distressing and constant.</p> <p>C. More than "never-get done" feeling, it is an intense painful tenesmus.</p>	<p>All preparations of Merc. act on the intestines, producing bloody stools with tenesmus.</p>	<p>L. Urine frequent, scanty, hot, bloody, retained or suppressed.</p>	<p>T. Severe cases.</p> <p>The most essential feature of Merc. C. is its phagedenic tendency to all inflammatory conditions.</p> <p>DIFFERENTIAL: The symptoms of Merc. C. are practically only those of Merc. V. intensified. The tenesmus of the bladder and rectum is most characteristic.</p>
HEP.	<p>A. Stools: may be slimy, bloody, green, but more apt to be clay-colored and sour smelling.</p> <p>B. Passes with great exertion, through soft.</p>	<p>H. I. J. K. Wants the modalities of Merc.</p> <p>Oversensitive, mentally and physically, easily irritated, sensitive to cold and heat, touch.</p> <p>Cause: Abuse of Merc.</p>	<p>L. Weak bladder, symptoms as "dropping vertically," "must wait before u. flows," "never able to finish u." Reminds one of Merc. S.</p> <p>M. Sweats easily by every slight motion.</p>	<p>T. Chronic intestinal Catarrh, with inactive rectum, more often than Dysentery.</p> <p>The most essential feature of Hep. is its tendency to promote suppuration.</p> <p>DIFFERENTIAL: Wants the modalities of Merc.</p>
NIT. AC.	<p>A. Stools: Painful as though something were sticking.</p> <p>B. "as from splinters" in anus.</p>	<p>Especially suited to dark-haired people (Merc. to light-haired people).</p> <p>Cause: Abuse of Merc.</p>	<p>L. Sticking in orifice of urethra. Urine smells like horse urine.</p> <p>P. Ulcers at mucous outlets of body where skin and mucous membranes meet.</p>	<p>T. Sub-acute or Chronic Dysentery—Typhoid type.</p> <p>DIFFERENTIAL: Characteristic pains are like splinters sticking in rectum.</p> <p>Nit. AC. has these severe pains for hours after S. Merc. has the "never-get-done" feeling.</p>
PHOS.	<p>A. Stools: Bloody, with small white particles, like opaque frog's spawn.</p> <p>B. Involuntary the moment it enters the rectum.</p> <p>E. Anus wide-open constantly.</p>	<p>> cold food and drink.</p> <p>< soon as it gets warm in stomach.</p> <p>< turning on left side.</p> <p>Especially suited to tall, thin sensitive and anæmic people; or persons who are nervous, irritable, idly, stoop and suffer chlorosis and anæmia.</p>	<p>L. Great exhaustion and emaciation.</p> <p>P. Weak, gone feeling, especially in entire abdomen.</p>	<p>T. In chronic cases mostly Hemorrhagic diathesis—"Small wounds bleed much."</p> <p>DIFFERENTIAL: Sago-like particles in S. Anus wide-open; involuntary rather than "never-get-done" feeling. The modalities.</p>

PULS.	<p>A. Stools: No two S. alike. F. Bitter taste, foul breath, Thirstless. G. Tongue white, covered with tenacious mucus.</p>	<p>< warm room and heat. > open air. I. < evening. Especially suited to women and children, light complexioned, mild, subacute, chronic. Cause: Fatty foods, ice cream.</p>	<p>L. Urine frequent and profuse. O. Chilliness. R. Pains in limbs, shift rapidly.</p>	<p>MEMO: The woman's remedy. Light complexion. Mild disposition, weep easily. Delayed menses. Symptoms ever changing, and pains ever shifting. Thirstless. Thirstlessness. All discharges bluish, thick and yellowish green.</p>
SUL.	<p>A. Stools: Like Merc. has great variety, also bloody mucus, especially bloody in streaks. B. Tenesmus, not as violent but equally persistent. D. Burning, itching, pressing in anus. E. Anal hemorrhoids. F. Hungry and faint 10-11 A. M. G. Taste pasty, bitter or sour. Tongue coated, dry thirst.</p>	<p>< night. < heat of bed. J. < early morning. < at rest, especially standing. > during motion, walking.</p>	<p>L. Burning in urethra. M. U-frequent and scanty. Especially suited after Acon. in acute cases. Also after Merc. fails. N. Burning and heat in the chief center of the body. Offensive odor of body despite washing. P. Averse to washing. Emaciation and debility, "cat nap" sleep. Red lips and other orifices of body.</p>	<p>T. When the appropriate remedy fails to act, in sub-acute and chronic cases. Especially suited after Acon. in acute cases. Also after Merc. fails. Burning and heat in the chief center of the body. Its chief local action is on the skin, itching and vesicular. Chronic Miasma.—Psora.</p>
ACON.	<p>A. Stool: Even pure blood, frequent and small. B. Tenesmus.</p>	<p>Best suited to nervous, sanguine, rheumatic, plethoric people with dark hair and eyes, and rigid fibre, especially if habits sedentary. Cause: Checked perspiration; cold, dry N. W. winds; cold nights and warm days as in autumn; fright.</p>	<p>L. Urine red and hot; anxious despondency. O. Chill before fever. R. Rheumatic pains in head, neck and shoulders. Mental anxiety; fear of death. Weakness. Dry heat. Full, hard, quick pulse. Unquenchable thirst.</p>	<p>T. In the very beginning of Dysentery. DIFFERENTIAL: Tenesmus less continuous. Tongue swollen but does not show imprint of teeth. Symptoms of all symptoms. Slight chill. Dark complexion (Merc. Light).</p>
APIS.	<p>A. Stools: D. Raw sensation in anus. Bruised, soreness of abdomen. Little or no thirst.</p>		<p>Stupor interrupted by occasional piercing shrieks.</p>	<p>MEMO: Edema. Pains stinging, burning, sore. Prostration. Thirstless generally. DIFFERENTIAL: Low type of fever without thirst. Bruised soreness of abdominal wall.</p>
ARG. N.	<p>A. Stools: Green mucus "like B. When any tenesmus. G. Noisy flatus and noisy eructations. Tip of tongue red and painful.</p>	<p>H. > after S. < after eating candy or sugar.</p>	<p>L. Burning in urethra. R. Tremulous weakness with coldness.</p>	<p>T. Chronic Dysentery with ulceration of rectum. MEMO: The characteristic splinter-like pains of Nit. ac. are not lost in Arg. n. Protrude muco-purulent discharges, and violent ideas, and inco-ordinate movements. DIFFERENTIAL: If any tenesmus, is > after S.</p>

ARS.	<p>A. Stools: Dark and putrid. B. Burning in anus. D. Burning thirst for little water often. Vomiting immediately after eating or drinking.</p>	<p>< after midnight. < after eating or drinking. > heat. < cold.</p>	<p>L. Burning in urethra. Micturition involuntary. P. U. scanty and burning. Profound exhaustion. Rapid emaciation. Q. Great prostration. Anxiety and despair.</p>	<p>MEMO: Great thirst for little and often. Great burning. > heat. Great prostration. Rapid emaciation. < lying down. DIFFERENTIAL: Characteristic thirst of Ars. Great thirst of Merc. Ars. > heat, Merc. < heat. Characteristic tenesmus of Merc.</p>
BAP.	<p>A. Stools: Offensive. B. Tenesmus, generally painless. G. Tongue yellowish-brown with red shining edges.</p>		<p>N. All discharges offensive. P. Great prostration. Face dark red with besotted look. Sleepless and restless; feels scattered about the bed and room. Incontinence about to get the pieces together.</p>	<p>T. Typhoid type, especially in old people. DIFFERENTIAL: Painless tenesmus. Tongue and face. Want the modalities of Merc.</p>
BELL.	<p>A. Stools: If tenesmus very painful—is more than adults. Light hair and blue eyes. Pictorial. B. Especially suited for children more than adults. G. Tongue deep red and dry. Pain in abdomen as if sore or tenderness on pressure.</p>	<p>< motion. > rest. Especially suitable for the gouty or rheumatic diathesis. Dark complexion, firm fibre, irritable.</p>	<p>L. Retention of urine, which passes only drop by drop, or Enuresis Head hot while hands and feet are cold. Violent throbbing of carotids. Vomiting of bile. Dilated pupils. Starting during sleep. Sleepy but cannot sleep.</p>	<p>T. Dysentery, especially in children. MEMO: Great sensitiveness and acuteness of senses. Pains come and go suddenly. Heat, redness and burning. < lying down. Skin scarlet, smooth and shining. Stools like Merc. except < L side in mouth and fauces.</p>
BRY.	<p>A. Stools: More commonly dry and difficult to evacuate than constipation. F. Taste bitter. G. Thirst for large quantities at long intervals. Tongue dry and mostly white.</p>		<p>L. Urine red, almost brown. Mucous membranes all dry.</p>	<p>T. After Acon., in Summer, after taking cold drinks. MEMO: Sitching, tearing pains. Incontinence, mainly rectal. Bilious, irritable and inclined to anger. Thirst large quantities, long intervals. Disinclination to make any effort. DIFFERENTIAL: Dark complexion (Merc. light.) Modalities.</p>
CANTH.	<p>A. Stools: White or pale-reddish mucus, like scrapings of intestines. B. Tenesmus.</p>		<p>L. Burning, cutting in urethra. Tenesmus of bladder, constant tracing, painful, in drops, or pieces. P. Tendency to collapse.</p>	<p>T. Bad cases, epidemic form. DIFFERENTIAL: Stools like scrapings of intestines. Urinary symptoms more intense than in Merc.</p>
CAPS.	<p>A. Stools: Mucus, at time mingled with blood. B. Small and frequent. P. Tenesmus and burning in rectum. F. Burning in anus. Thirst after every stool, and shivering after every drink. Taste foul.</p>		<p>L. Burning and tenesmus of bladder. R. Drawing pains in back.</p>	<p>T. Dysentery in moist weather. MEMO Burning and smarting as from red pepper. DIFFERENTIAL: Shivering when patient drinks. Drawing pains in back. (Merc. pains are bruised.)</p>

CARR. V.	A. Stools: Putrid, cadaverous odor. Flatus offensive. Abdomen greatly distended.	Especially suited to old people; children after exhausting dis- eases; "a venous constitution;" tendency to hemorrhage in low types of disease.	Desire to be constantly fanned. Cold extremities, especially knees. Tendency to collapse.	T. Very severe cases, or later stages of Dysentery. MEMO: Flatulence. Offensive discharges. Putridity and burning. Weakness. Coldness. Lividity.
	A. Stools: Colic, gripping below navel, obliging him to bend over.	H. > S. > eating or drinking. > hard pressure. Cause: Anger with indignation.	L. Frequent urging to urinate. R. Inclination to painful cramps in all parts.	S. The nervous elements predominate over the inflammatory symptoms. MEMO: Colic. Neuralgia in various parts of the body. DIFFERENTIAL: The characteristic gripping colic > after S. Tenesmus > after S.
COLO.	A. Stools: Colic as after taking cold, and as if diarrhea would occur.	< wet, cold. Especially suited to catarrhal and rheumatic diathesis, and irritable disposition. Cause: Damp cold weather; abuse of Merc.		DIFFERENTIAL: Dulc. and Merc. symptoms very much alike, but the Merc. symptoms are more intense, and the Dulc. aggra- vated by coldness marked. Good for the abuse of Merc.
	A. Stools: Bloody. B. Absence of tenesmus.	Especially suited to pale, anemic people, but subject to sudden pneumonia, and inflamma- tion like the plithoric Acon.	Fever.	T. First Stage of Dysentery. MEMO: It stands between Acon. and Gela. in fever. Hemorrhages bright from any orifice. Acute articular rheumatism. DIFFERENTIAL: No Tenesmus.
FER. P.	A. Stools: Green mucous "as green as grass." Bloody, almy, or almost black, and fermented like frothy mo- lasses. F. Constant nausea; salivation; Violent colic. G. Tongue usually clean.			T. Seldom suited to long continued cases. MEMO: Constant nausea. Hemorrhages bright red from all the orifices of body. DIFFERENTIAL: The peculiar S. Constant nausea. Vomiting. Clean tongue.
	A. Stools: Brown frothy water, or jelly-like and bloody. F. Burning pains at pit of stomach. G. Tongue dry, red, smooth and cracked.	< morning Especially suited to fat, fair, slug- gish people, and children. Cause: Periodical every year as in spring.		T. Sub-acute rather than acute. MEMO: The secretions become tough, stringy and adhesive, finally hardening into plugs or membranes. Ulcers that do not migrate. Pains in small spots, and migrate quickly. Hoarseness and cough. Fair, fat, and sluggish people, especially children. DIFFERENTIAL: Gelatinous S. Tongue < morning.
IPEC.				
KALI BI.				

LYC.	<p>A. Stools: (1) dry as in constipation is (2) more characteristic.</p> <p>F. A little food causes fullness and distension of abdomen.</p>	< 4-8 P. M.			<p>T. Chronic Dysentery.</p> <p>MEMO: < 4-8 P. M. Direction, right to left. Heavy red sediment in urine.</p>
MAG. C.	<p>A. Stools: Bloody mucus with green frothy acum like that of a frog pond. Desire for meat.</p>	More for women and children.			<p>MEMO: Children—pale, sickly, with colic and green stools. Sour taste and sour smell of eructations, vomit, stool, perspiration and whole body. Women: Tootache of pregnancy, < night and > cold drinks Menses black, and flow only at night. DIFFERENTIAL: Does not have "sweat without relief", nor mouth symptoms of Merc. (its toothache is also like Merc but no motion).</p>
NUX V.	<p>A. Stools: Bloody mucus, more commonly constipated).</p> <p>B. Frequent ineffectual desire, passing but small quantities at each attempt.</p> <p>D. Burning in anus but most especially in rectum.</p> <p>E. No prolapsus ani.</p> <p>F. Bad taste in mouth in morning.</p> <p>G. Aversion to food; nausea and vomiting.</p> <p>Spasmodic colic (more common in constipation).</p>	<p>< morning.</p> <p>H. > for short time after S.</p> <p>Especially suited to persons of sedentary habits, ill-humored, irritable, nervous, and oversensitive mentally and physically.</p> <p>Cause: Drug mixtures, alcohol, highly-seasoned foods, coffee, tobacco.</p>		<p>L. Burning during nacturition, U frequent, difficult, even in- frequent, with red face, and O. Diverse to uncovering. R. Backache.</p>	<p>T. Nux must not be overlooked in Dysentery because more frequently used in constipation. DIFFERENTIAL: Pains > short time after S.</p>
RHUS. T.	<p>A. Stools: Bloody water, like washings of beef.</p> <p>F. Craving for cold milk.</p> <p>G. Triangular red pit on dry and cracked tongue.</p>	Especially suited to rheumatic diathesis. Cause: Getting wet while overheated; strains.		<p>R. Tearing pains down the thighs.</p>	<p>T. Mostly in late stages of Dysentery with typhoid symptoms.</p> <p>MEMO: < rest, and > motion < damp weather and cold. Great restlessness. DIFFERENTIAL: Craving for cold milk. Laborious dreams of excessive bodily exercise.</p>
VERAT.	<p>A. Stools: Watery and profuse.</p> <p>F. Desire for fruits and acids.</p> <p>Violent thirst for large quantities of very cold drinks and cold drinks.</p> <p>Vomiting.</p> <p>Severe colic.</p>	H. > after S.		<p>N. Cold sweat on forehead. R. Violent cramps of the extremities. Contracted pupils.</p>	<p>T. Rarely of use in Dysentery, but especially so if choleraic symptoms preponderate.</p> <p>MEMO: Copious stools, vomit and sweat, Cold sweat. Coldness and blueness of the surface of the body. Gradual increase of weakness. Excessive weakness. DIFFERENTIAL: No tenesmus. Copiousness of the discharges. Coldness and blueness of the entire body.</p>

EDITORIAL

DIET IN TYPHOID FEVER.

THE idea that the only food suitable for a patient suffering from typhoid fever is milk has been inculcated into the minds of medical practitioners for a great many years. We confess personally that it was with considerable astonishment that on visiting a very noted hospital in New England during the past summer we saw typhoid fever patients fed on a great variety of solid and semi-solid foods in addition to their milk diet.

On inquiring into the question we learn that a varied diet has been employed by a number of eminent clinicians, prominent among whom are Shattuck, Barr and Bushuyev. Dr. Shattuck is a particularly warm advocate of a varied diet in typhoid fever. In a series of 241 cases which he has treated during the past eleven years he claims that the liberal diet has been a great comfort to the patient, has tended to conserve the flesh and strength, and has caused no increase in the percentage of mortality. He also states that there has been no increase in the percentage of perforations and hemorrhages from the liberal diet, but rather a diminution.

As to a varied diet being more agreeable to a patient we are, of course, all agreed, and it should be given the preference provided the advocates of this liberal diet can show that it has no bad influence on the course of the disease. The preservation of the strength and of the body weight of patients suffering from typhoid fever is undoubtedly an important matter and one that has not received sufficient attention. We are so accustomed to seeing patients extremely emaciated after an attack of this disease that we are accustomed to conclude that such emaciation is a necessary result of the disorder. It can very readily be shown, however, that the average amount of milk which a typhoid patient receives daily (approximately two quarts) only furnished about 1,300 calories of food energy. To supply 2,800 calories, which is the amount required in health according to Chittenden, the patient should receive daily four quarts of milk. It must be acknowledged, therefore, theoretically at least, that the average patient on a milk diet is decidedly under-

fed. There is no question but that patients who receive a more varied diet do not undergo the marked emaciation that ordinarily occurs, and we have seen patients on such a diet who have passed through attacks of typhoid fever of ordinary severity and have lost only two or three pounds in weight.

When we come to consider the relative mortality rate of patients treated on a liberal and on a milk diet it would appear that the statistics showed a difference of 1.75 per cent. in favor of a free diet. Kinnitickutt's statistics, collected from a number of hospitals, show a mortality rate of 9.47 per cent. in 633 cases fed on a liberal diet and a mortality rate of 10.83 per cent. in 5,168 cases treated on a milk diet. Relapses were somewhat more frequent in patients fed on a varied diet. Hemorrhage was almost twice as frequent in the patients treated by a milk diet, and perforation was present in 2.74 per cent., as against 1.36 per cent. on a liberal diet.

It must be borne in mind, however, that statistics, as far as they are obtainable at present, are not capable of satisfactorily settling this important question. All we are able to say at present is that a typhoid fever patient whose digestive capacity is good can probably take a somewhat varied diet with advantage and certainly without serious harm. Strict limitation of the diet to one article of food does not appear to be either rational or necessary. Careful study of the individual case with a view of determining the particular character of food that the patient can readily digest would seem to be the advisable method of feeding these patients. It goes without saying, of course, that food containing hard and indigestible portions must be entirely omitted. But a variety of soft, nutritious and unirritating foods in addition to milk are available for this purpose.

PROFESSIONAL SECRECY IN VENEREAL DISEASES.

THE action of the American Institute of Homœopathy, at its recent meeting in Detroit, in adopting an amendment to the code of ethics "releasing physicians from professional secrecy regarding private affairs of patients or their families when such secrecy or silence results in the injury or infection of innocent persons" has attracted a great deal of comment both favorable and otherwise. The amendment relates, of course, more especi-

ally to the duty of a physician in the presence of gonorrhea or syphilis, and its particular design is to protect the patient's wife or prospective wife.

Whether the Institute has done wise in violating the principle of absolute secrecy on the part of the physician regarding information conveyed to him in his professional capacity is, of course, open to argument. Personally, we do not believe that the resolutions of medical organizations will go a great ways toward the settlement of this doubtful question; at least not for a long time to come. Questions of this nature must be settled largely in accordance with the judgment of the individual physician after taking into consideration the various circumstances in the particular case. Public opinion as well as professional ethics must necessarily have a strong bearing in deciding what is the best policy in such instances, and we are inclined to the view that an educated and rational public sentiment will do more to influence the actions of physicians in such matters than will the formulation of official rules and regulations.

MODERN MOVEMENTS IN MEDICINE.

SIR THOMAS OLIVER, in a recent address, delivered at the opening of the post-graduate course of study at the Glasgow Royal Infirmary on September 1st, 1909, has called attention to some of the interesting developments in modern medicine. One of the most notable of these is the growing interest that is being taken by physicians in post-graduate courses of study. The progressive practitioner to-day feels that in order to keep abreast of the advancements in medicine it is necessary for him from time to time to revisit some of the large medical centers and see what improvements have been made in medical practice. Fortunately, the advantages of post-graduate work are by no means confined to the physician who engages in it. The patients of such physicians are, in the end, the ones who receive the greatest benefit from this movement, and the more intelligent among the laity are sufficiently wise to realize this fact, and, when possible, prefer to select as their family physician a man who shows a determination to thus keep abreast of medical progress.

Another important recent development in medicine has been

in its relation to the prevention of disease. To the former idea that the duty of the physician was to heal the sick has been added the obligation to prevent the spread and development of disease. One result of the growth of preventive medicine has been the much wider employment of physicians by the local and national government. Thus physicians have had an important part to play in the construction of the Panama Canal, in the rendering of Cuba a safe and healthy place of residence, in the protection of our Atlantic ports against yellow fever and other plagues, in the inspection of school children, in the improvement of water supplies, in the isolation of contagious disease, and in other ways too numerous to mention. Indeed, some medical schools have already instituted courses designed for the special purpose of training physicians for State and National sanitary work, and it is probable that in the future there will be quite a field for medical graduates in this line.

Probably the most revolutionary development in modern medical treatment has been the introduction into general use of vaccines and serums. While it is true that in a slightly different form these substances have been employed by homœopathic physicians for almost 100 years, a general recognition of their value has only been brought about during the last decade. The work of Wright, of England, has probably done more to popularize this method of treatment among practitioners of the dominant school than that of any other one man. To-day we find that vaccines and serums in one form or another are being employed in the treatment of almost every known infectious disease. In many instances the results thus far obtained have shown but little improvement, if any, over the older methods of treatment. In other instances, such as staphylococcus infection, tuberculosis, and in diphtheria, the results obtained have been eminently satisfactory. Unless the opinion of the majority of medical men is at fault, we may confidently hope to find in the future development of this method of treatment valuable means of controlling many other infectious diseases.

GLEANINGS

TREATMENT OF DIPHTHERIA, WITH SPECIAL REFERENCE TO THE PREVENTION OF HEART FAILURE.—It is important to recognize that some impairment of the heart muscle occurs in almost every case of diphtheria, and it is imperative that, having recognized this fact, we should realize that in prophylaxis lies our most potent therapeutic aid, and that prophylaxis may be summed up in two words—antitoxin and rest.

We know that in all cases of diphtheria the musculature of the body is attacked, and that no group of muscles suffers so early or so sorely as those of the heart and blood vessels. The result is that circulatory failure is the almost invariable cause of death in this disease.

Bolton has examined the medullas of 11 such cases and found that in all of them the neuron cells of the vagus nucleus were in a condition of glandular degeneration and he attributes the slow pulse to vagus stimulation that follows the irritation which this degenerative process sets up. The fact that atropin, which inhibits the vagus, frequently restores the rapidity of these slow hearts, supports this view, and the further fact that in all such case which died the pulse rate was markedly increased before the fatal issue, suggests that the stimulation of the vagus had gone on to the point of overwhelming action and paralysis and that the heart, with its vagus control abolished, had raced itself out. This theory takes no note of the fact that in these cases the heart muscle itself is found in a condition of extreme destructive degeneration. On the other hand, many pathologists look on the manifestations of circulatory failure in diphtheria as being entirely due to the changes in the myocardium and in the arterial muscles. It has been shown that the alterations in muscle, which come with acute myocarditis, are competent to produce either a slowing or an increase in the pulse rate. The differences of the pathologists extend even to their explanations for the late failures, those who hold the myogenic theory considering that the late failure is but an exhibition of a loss of contractility and retractibility of the myocardial fibers, with a lowered irritability, giving rise to an acute dilatation, with overfilling of the heart, under slight degrees of strain. On the other hand, the school that looks for its explanation to the nervous system also considers this type of failure to be due to an acute dilatation after degeneration of muscle fibers, but believes that the degeneration is, to a large degree, due to trophic changes following a vagus neuritis, and points out that late type of heart failure occurs at the same period of the disease as does the peripheral neuritis that gives rise to paresis of skeletal muscles, and they would class the two conditions in the same category. Whichever school of pathology holds the true view matters little to the clinician, as his therapeutic attempt is to reach and overcome these changes, whether they be in origin nervous or

purely muscular. And in antitoxin he has an agent which, if used with sufficient vigor and promptness, will rob the pathologist of an opportunity to determine what really has taken place.

In considering diphtheritic heart failure the first principle, then, is to give antitoxin. The second is to secure rest for the patient. Seven out of 10 cases may be saved by antitoxin given as is usually done, but to save 2 out of the other 3 it will be absolutely necessary that massive doses be given, and then, if the cases have not been seen early it is only by acute vigil and careful nursing that the remainder will have a chance of recovery.

If antitoxin is indicated at all, at least 6,000 units should be given. Knowing as we do that every hour in which unneutralized toxin circulates adds to the damage it is wreaking on the tissues and knowing further that antitoxin has no power to undo such damage, have we any right under the plea of economy, or any other plea whatsoever, to give small doses with intent to repeat them within twelve or twenty-four hours if we find that our guess has been wrong and that we have not completely neutralized the toxins? My answer is absolutely and unequivocally, No. There is neither reason nor economy in such a procedure. It may be that a severe poisoning will demand several repetitions of the serum, but, as a rule, an initial and promptly given dose of 8,000 units will more rapidly remove the faucial membrane, swelling and fetor, more surely overcome the intoxication and more certainly prevent heart failure or paresis than three or four doses of 4,000 units.

Where the systemic poisoning is slight, patients recover completely and promptly after the injections of 6,000 or 8,000 units, and they will get well if given 3,000 or 4,000, but recovery will be slower and more apt to present complications. Moderate degrees of intoxication call for from 8,000 to 10,000 units and massive doses of 20,000 to 50,000 units should be reserved for deeply poisoned cases which show marked lethargy and cyanosis with or without heart involvement.

If the first principle of the treatment of heart failure in diphtheria is promptly to give sufficient antitoxin—intravenously if need be—then the second is to secure rest for the patient. In the earlier days of the attack, if it be severe, the intense lethargy due to the poisoning insures bodily quiet up to within a few hours before death, when extreme restlessness may set in. Often, however, with the less grave degree of poisoning, especially in the case of children, there is intense restlessness and the constant movement may cause over-strain of the poisoned heart and lead to an alarming degree of failure. In such cases some authorities advise restraining harnesses, or forcible retention in recumbency. To my mind, all such devices are inherently vicious and defeat their own purposes. Most of them are inefficient, and although children may not be able to move in those that are efficient, their efforts to do so are as bad, or worse, for the heart than any amount of movement could be. Our practice is to give such children camphorated tincture of opium in doses just sufficient to keep them drowsy. By this practice we accomplish three things: We depress the sensorium, we rest the heart and we get whatever stimulant action the camphor and opium may have on the myocardium. In our service every case of diphtheria, no matter how slight, is considered one of potential circulatory failure and the heart is carefully watched from day to day for

the signs of those slighter degrees of involvement which not infrequently precede graver failure.

The essentials of treatment for the heart condition accompanying diphtheria are:

- (1) Prompt and sufficient dosage of antitoxin.
- (2) Rest in bed not less than three weeks.
- (3) Attention to the condition of the abdominal viscera.
- (4) A nutritious, easily digestible diet.
- (5) Certain drugs each according to the indications. For a slow heart, atropin. For a racing heart, camphor, and ice to the precordium; for vascular failure, ergot.
- (6) If the heart failure is incidental to an overwhelming toxemia with lethargy, hypodermoclysis.—Langley Porter, M. D., *Archives of Pediatrics*.

REFLEX AURAL NEUROSIS CAUSED BY EYESTRAIN.—Tinnitus, a "muffled" sensation in the ear, moderate otalgia, and functional impairment of hearing may result from eyestrain. This relationship is shown by the disappearance of these symptoms after relief of the ocular condition, by the fact that the symptoms, usually unilateral, commonly occur on the same side as the more troublesome eye, and by the aggravation of the symptoms which follows use of the eyes.

As the tensor tympani and stapedius muscles derive their nerve supply from the fifth and seventh nerves respectively, it seems probable that contractions of these muscles might occur in association with the irregular orbicular contractions which often accompany eyestrain. The three kinds of tinnitus which have been observed by the author as complications of eyestrain are: The usual or vascular type; the relatively low pitched fluttering sound which is due to irregular contractions of the tensor tympani muscle; and the high pitched tinkling sound which is caused by similar activity of the stapedius muscle. The first of these types, together with the impairment of hearing which occasionally coexists, is explained by the author as being due to vasomotor disturbance of the intralabyrinthine vessels. The same explanation may be applied to the muffled sensation, or this symptom, like the otalgia, may be occasioned by reflex irritation of aural branches of the fifth nerve. The author describes four selected cases.—Samuel Theobald, *Jour. of the A. M. A.*, July 10, 1909.

CHARLES D. FOX, M. D.

AN ANEURYSM OF THE LEFT ANTERIOR CEREBRAL ARTERY WITH RUPTURE, SIMULATING A BRAIN TUMOR.—The patient, a man of thirty years, came under the observation of J. Arthur Booth, June 3, 1907. Eleven years before this time he had had a chancre which was followed, five years later, by severe frontal headaches. General convulsions which were accompanied by loss of consciousness and followed by deep stupor developed in January, 1906, and recurred at frequent intervals. Examination showed the presence of nuchal rigidity, Kernig's sign, and double optic neuritis with choking of the discs. Otherwise, nothing of importance was noted except that he was apathetic and that he answered slowly. A diagnosis was made of tumor of the brain complicated by basilar meningitis, and, after tubercular meningitis had been excluded by means of lumbar puncture, vigorous anti-

syphilitic treatment was instituted on the basis of the acknowledged syphilitic infection.

On July 3, after having decidedly improved, the patient suddenly developed a severe general convulsion followed by deep coma and death two hours later. Examination of the brain by Dr. C. I. Lambert showed that a large hemorrhagic mass of the interior of the left frontal lobe had resulted from rupture of a fusiform aneurysmal dilatation of the primary branch of the left anterior cerebral artery. Furthermore, the cerebral vessels were found to be the seat of syphilitic endarteritis obliterans. The author remarks that the attacks are capable of being explained by the assumption that they were the result of variations of intracranial pressure induced by irregularity in the amount of distention of the aneurysm. He believes that the diagnosis of brain tumor was justified by the presence of headache, tenderness at the base, nuchal rigidity, Kernig's sign, mental apathy, slowness of speech, convulsions, and optic neuritis with choking of the discs.—*Jour. of Nerv. and Mental Dis.*, September, 1909.

CHARLES D. FOX, M. D.

COAL TAR IN DERMATOLOGY.—Dr. John T. Bowen and H. P. Towle publish a report on dermatology (*Boston Medical and Surgical Journal*), from which the following is taken:

It is admitted at the outset that coal tar is not a new remedy in the treatment of skin diseases. It has often before been employed by dermatologists and it has also had considerable popular usage. Coal tar is very different from the vegetable tars in its composition and has quite a different color. It is one of the so-called reducing agents, resembling somewhat in its actions pyrogallic acid, and has, like the latter, keratoplastic qualities. It has an action both on the surface, in diminishing the thickened horny layer, increasing the vitality of the rete cells, constricting the lymphatic channels in the epidermis, acting as an astringent on the papillary vessels, as well as acting upon inflammatory infiltrations and suppressing the pruritus by its influence on the terminal nerves. When used in concentrated form, and upon denuded skin, it may cause hyperæmia and inflammatory action.

In 1906 Dind, of Lausanne, published the results of his clinical studies of coal tar used in its pure state. Beginning with the more chronic inflammations, he found that the remedy could be applied without irritation to acutely inflamed surfaces.

The good results that were obtained by Dind with this remedy are confirmed by the studies of Brocq. Having ascertained that the composition of coal tar is very variable, coal tar derived from the manufacture of illuminating gas, which has but a very weak caustic action, was chosen. Washing in distilled water was the means employed for removing the caustic properties.

When pure coal tar is applied to an infected cutaneous surface—that is to say, a skin upon which there are virulent micrococci capable of producing a folliculitis—its action is not favorable, and it seems sometimes to hasten the development of cutaneous infections.

In certain affections, especially when applied to a case of pruritus without visible cutaneous lesions, it seems to produce erythema and an increase of the morbid conditions.

In certain cases of moist eczema, however, pure coal tar has a truly re-

markable drying effect, although it has seemed that if the application was made daily on an eczematous surface it often caused irritation and pain.

With regard to the mode of application, the crusts are first removed by moist applications or pastes, the pustules are opened and the surface cleansed before the coal tar is applied. It is spread over the surface in a thick layer and allowed to dry before powdering with talcum and covering with linen.

If the skin is not greatly inflamed, and if the exudation is not considerable, it is well not to change the dressing for two days, and if at the end of this time the appearance is satisfactory, and the patient has no burning or itching, the part may be powdered until all vestige of tar has disappeared, which usually happens between the fourth and the sixth days. Another application of tar may then be made.

If, however, the skin is acutely inflamed, and if there is an abundant exudation and the patient has much burning and itching, it has been found advisable to dress the part with a simple zinc paste one or two times after the application of tar.

Brocq first tried pure coal tar in rebellious vesicular eczema, especially in the chronic exudative form that occurs on the lower legs in people of poor venous circulation. Very remarkable results were obtained in eczemas of this variety. If the patient can be kept in bed with the leg extended and lifted, from three to five applications will produce healing. It is remarkable to observe the effect produced by these applications upon an inflamed, oozing eczema in removing the congestion and retarding the exudation.

It was found occasionally that severe burning and stinging was produced some hours after these applications, so much so that the patient complained that it was impossible to bear it. This is, however, of short duration, and it is found that the application can be borne.

Besides this direct topical action, the preparation seems to act as a protective, and doubtless also, in a mechanical way, in producing a certain effect of constriction and compression upon the inflamed parts. It certainly diminishes the congestive œdema. It does not, however, act as a simple varnish. It was found that a purified coal tar was not so effective an agent. The conclusion was reached that it was the impurities which gave the coal tar the properties of a paste, it being known that greater proportions of drugs may be incorporated in pastes without causing inflammations than in simple ointments.

This application was found to have a remarkable effect also upon papulo-vesicular and other subacute forms of eczema. In the artificial eruptions it did not appear to be of great value. In seborrheic eczema the results of this treatment are somewhat variable. The exudation is rapidly diminished as well as the inflammation and congestion of the skin, but it does not always cause the eruption to disappear wholly.

Psoriasis is not greatly benefited by this drug except in cases where the lesions have become inflamed.

In conclusion, it is emphasized that one of the chief effects of coal tar is to suppress, or at least mitigate, itching. It is of value in simple pruritus, but not to any such extent as in a pruritic eczema. It is not claimed for this method that recurrences are made less frequent. In fact, the question is raised whether it is not possible that the suppression of the

exudation may cause more rapid and obstinate recurrences. It is pointed out that this treatment with pure coal tar is an excellent application for use in hospitals in cases of rebellious eczema, and that it has an especial merit in its absolute cheapness.

A NOTE UPON THE FARADIC STIMULATION OF THE POSTCENTRAL GYRUS IN CONSCIOUS PATIENTS.—In two cases of Jacksonian epilepsy in which it was necessary to do cranial operations in two stages, Harvey Cushing made use of faradic stimulation of the cerebral cortex during the second operation and after the patients had recovered from the effects of primary anæsthesia.

Applications to the precentral gyrus occasioned motor reaction without, however, the patients experiencing any other than kinæsthetic sensations. Exclusive of the precentral and postcentral gyri, stimulation of those areas which presented themselves in the field of operation was not accompanied by motor response or sensory perception.

In the first case it is mentioned that the patient seemed to be unaware even of the application of the electrodes to these regions. When the postcentral convolution of these patients was stimulated definite tactual perceptions were evoked. In both cases an area was discovered, the stimulation of which resulted in an epileptic attack similar to those which had occurred previously and spontaneously.—*Brain*. Part CXXV.

CHARLES D. FOX, M. D.

REMARKS OF A CASE OF COMPLETE AUTO-PSYCHIC AMNESIA.—Apropos of a case of hysterical fugue with complete retrograde amnesia, Ernest Jones takes advantage of his skillful psycho-analysis according to the theories of Freud and his success, by means of hypnosis, in effecting synthesis of the dissociated memories, to describe some of the simpler psychological mechanisms of hysteria.

Hysterical symptoms are the external expression of mental processes which have been dissociated from the main body of consciousness. This dissociation, commonly supposed to be the effect of psychic traumata to hereditary psychopaths, is not adequately explained in this manner for the reason that careful psycho-analysis reveals a more fundamental and precise reason for its production. That which is forgotten is dissociated because it is incompatible with the predominant components of the patient's personality; the dissociation being effected by automatic attempts to forget, to submerge, to repress, the painful or unpleasant memories and their associated ideas. Every hysteric symptom is based upon a pathologic amnesia whose nature, and even whose existence, is, in most cases, unknown to both the patient and to the physician.

As the original dissociated memory complexes are supplemented by dissociation of subsequent complexes, which, if retained in consciousness would tend to produce synthesis by reason of association of ideas, amnesia is made up of different levels, in time, of disaggregated complexes. Therapeutic synthesis, therefore, of the uppermost level, or levels, is only temporary for the reason that the primary dissociated memories have not been synthesized with the patient's consciousness. To cure the patient it is necessary to trace the pathogenic chain of associations back to the original, or deepest, level of amnesia.

Two groups of memories separately may be compatible with consciousness, but the relation between the two may be associated with a deeper level of amnesia. Hence, a patient may be unable to remember two groups of memories at the same time, though capable of recalling either at different times.

Formerly it was taught that amnesia depended upon defective registration, conservation, reproduction, or localization in time, but what is not assimilated cannot be lost and an event which, though recalled, is not localized correctly in time does not constitute amnesia. Defective conservation was thought to produce continuous amnesia for the reason that impressions would be lost as fast as they were registered. The author, however, expresses the doubt that defective conservation ever leads to amnesia. One should not speak of conservation amnesia until the possibility of defective reproduction has been excluded. "The evidence is rapidly increasing, which indicates that provided apperception, and therefore registration, are sufficiently unimpaired then the memories will be indefinitely conserved, and any apparent loss of them is really due to defective reproduction only. Such a view is, of course, very hopeful, for it encourages one to expect that with improved special technique cases of amnesia will always yield to treatment, provided that the mental functioning in general does not too greatly deviate from the normal."—*Jour. of Abnormal Psychology*. Vol. IV, No. 3.

CHARLES D. FOX, M. D.

THE SURGICAL TREATMENT OF ATHETOSIS AND SPASTICITIES BY MUSCLE GROUP ISOLATION.—Inasmuch as athetosis and organic spasticity are essentially of nervous origin, the surgical measures which have been employed in the treatment of these similar perversions of function are unsatisfactory; partly because they were directed only against pathologic effects, and partly because of the supplementary treatment necessitated by these operations. Consequently, the authors devised a method of attacking athetosis and spasticity more directly by means of injecting 80% alcohol into the exposed nerve which innervates the affected muscle groups, thereby preventing the transmission of the highly irritative impulses which arise from the cortical motor cells. This method of treatment causes immediate paralysis of the affected muscles. Following the injection physiological exercises are employed in order to strengthen the antagonists. In cases which were treated by the author in this manner the muscles paralyzed by the injection are slowly regaining their function. Reports of three cases are included in the paper.—Sidney I. Schwab and Nathaniel Allison, *Jour. of Nerv. and Ment. Dis.*, August, 1909.

CHARLES D. FOX, M. D.

THE OCCURRENCE OF REMISSIONS AND RECOVERY IN TUBERCULOUS MENINGITIS; A CRITICAL REVIEW.—A case of meningitis can be diagnosed unquestionably as tuberculous only by means of subsequent post mortem examination or when the presence of tubercle bacilli in the cerebro-spinal fluid can be demonstrated by the microscope, by inoculation experiments, or by cultivation in artificial media. Applying these requirements to cases which have been reported since 1894 of remissions, or recovery, from tubercular meningitis the author, Alfred E. Martin, finds no fewer than 22 cases in

which the diagnosis can be accepted without question. He thinks that long remission, and even recoveries, occur, possibly more frequently than we have been accustomed to believe, and that in these cases either unusual resistance on the part of the patient overcome the disease early in its course, or the virulence of the bacilli is so much less than usual that the meningeal lesions become localized and then sclerotic. The prognosis in these cases must be guarded, because the old lesion may become a focus of fresh infection and then a fatal outcome is the usual termination. After considering the treatment which was employed in the cases which recovered he believes that no treatment yet has been discovered which has any specific curative effect.—*Brain*, part CXXVI, 1909.

CHARLES D. FOX, M. D.

A CRITICAL STUDY OF THE SENSORY FUNCTIONS OF THE MOTOR ZONE (PRE-ROLANDIC AREA): MORE ESPECIALLY STEREOGNOSIS.—Stereognosis is not a sense, but is an intellectual process dependent upon associations of perceptions of touch, of muscle sense, of sense of position, of temperature sense, and upon the revival of memory pictures of other special sense perceptions. Being dependent, therefore, upon many cortical areas, and their association tracts, this complex form of cerebral activity theoretically may be impaired by lesions of any of these centers or tracts. The term simple astereognosis may be applied to those cases in which there is inability to recognize the form of objects (primary agnosia), and the term complex astereognosis to those in which there is inability to recognize both the form and characteristics of an object (asymbolia). The author believes that pure cases of "so-called" tactile asymbolia occur. That is, ability to recognize an object when placed in one hand but inability to do so when it is in the other; providing, however, that when in either hand the recognition of qualities of the object be not impaired. Three cases are reported. In the first case, one of tumor of the parietal lobe, there was astereognosis associated with loss of muscle sense and the sense of position. In the other two cases astereognosis was practically the only sensory manifestation of pre-Rolandic lesions. The author asks whether, on the evidence afforded by these two cases, it is permissible to infer that astereognosis without loss of other qualities of sensation, other things being equal, indicates a pre-Rolandic lesion, and whether astereognosis when associated with loss of other qualities of sensation, other things being equal, points to a post-Rolandic lesion. He reviews the recent literature bearing upon stereognosis and its imperfections.—Hérman H. Hoppe, *Jour. of Nerv. and Mental Dis.*, Sept., 1909.

CHARLES D. FOX, M. D.

ACUTE TRAUMATIC TETANUS TREATED BY MAGNESIUM SULPHATE.—After discussing tetanus, the inefficiency of its medicinal treatment, and the unsuccessful results which usually follow the employment of anti-tetanic serum, except when this agent is used as a prophylactic, A. P. Heineck reports a case which was treated with injections of the serum and magnesium sulphate. The patient, a boy of 17, had sustained a punctured wound of the foot, October 14, 1908. On October 21 trismus and rigidity of the neck appeared. The following day the patient presented the usual symptoms of a serious case of tetanus. During the next eight days 53,500

units of anti-tetanic serum were injected into the subarachnoid space, around the sciatic nerve, and into the foot which had been injured. Subarachnoid injections of 5 c. c. of a 25% aqueous solution of magnesium sulphate were made on the 23rd, 25th, 26th, 28th and 30th of October. These injections, as well as those of the serum, were made in the interspaces between the 3rd and 5th lumbar vertebræ. Each injection of the magnesium sulphate was followed by decrease in the muscular rigidity and by decided general improvement. Convalescence set in November 1st and proceeded in an uneventful manner until the patient was discharged, November 19, 1909.

The author remarks that the experimental work of Meltzer and Auer showed that intraspinal injections of magnesium salts abolish, temporarily at least, both tonic and clonic convulsions in animals. Clinical experiments, he says, seem partially to confirm the statement of these investigators that the same treatment in the case of tetanus in man is capable of abolishing completely the tonic and clonic convulsions; providing that the dose of the agent be not sufficiently large to affect the respiratory center. Following an injection the convulsive manifestations should be ameliorated for 24 hours or longer. When given by intravenous injection magnesium sulphate exhibits an inhibitory effect upon respiration; accordingly, this mode of administration never should be employed. The author appends abstracts of cases which have been reported of this method of treatment.—*Vermont Medical Monthly*, August 15, 1909.

CHARLES D. FOX, M. D.

THE SURGICAL ASPECTS OF CEREBRAL DECOMPRESSION.—After having conducted a series of experiments in animals, in collaboration with de Schweinitz and Holloway, Charles H. Frazier concludes that increased intracranial tension is not the only factor in the production of choked disc, though possibly it is the most important one. He believes that the presence of papilledema alone can not be regarded as an indication for decompression in cases of intracranial trauma. The amount of elevation of the discs does not appear to be indicative of the size of an intracranial growth. In opposition to the observations of Horsley, but in accordance with the more recent ones at Paton, the author states that in a series of cases examined by de Schweinitz there was not enough difference in the discs to enable any conclusions to be drawn relative to the side in which a tumor existed. About 75% to 80% of brain tumors are inoperable, but in these inoperable cases great relief may be afforded by means of decompression. Through the agency of this palliative treatment vision may be restored, or preserved, and both headaches and vomiting may be relieved. Temporal decompression is most suitable for pretentorial tumors, while suboccipital decompression is indicated in subtentorial growths. Unilateral decompression usually suffices, but if the tumor, by its rapid growth, effects return of the symptoms, then the opposite side may be decompressed. Besides being of great benefit in cases of inoperable tumor, cerebral decompression is of value in those cases in which the tumor cannot be localized.—*Jour. of the A. M. A.*, Sept. 11, 1909.

CHARLES D. FOX, M. D.

MENTAL ALIENATION IN WOMEN AND ABDOMINO-PELVIC DISEASE.—By obligating itself to care for the insane the State morally is bound to attend to their physical ailments. The author, W. P. Manton, has found that about 81% of insane women suffer from some form of pelvic or abdominal disorder. It is possible, however, that this percentage is no higher than that of sane women. He remains unconvinced that local disorders in themselves, and exclusive of septic or toxic conditions, ever result in insanity. When insanity does occur it has, in the majority of instances, a substructure of psychopathic heredity; local affections being merely incidental. Hallucinations may develop from abnormal physical conditions. Irrespective of the outcome of the mental disorder it is imperative that foci of irritation be removed. By rendering the patients more comfortable such measures are capable of inducing greater tractability and industry.—*Jour. of the A. M. A.*, Oct. 2, 1909.

CHARLES D. FOX, M. D.

THE RESULTS OF OPERATING MAMMARY CANCER.—Fursterer gives the results obtained in Vienna in 606 cases operated since 1877. Of these cases reports were obtained in 492 cases. 89.6% of the patients were married, and 10.4% were single. Parturition and lactation seemed to be etiological factors. Permanent results were obtained in 12.5%, but in the last eight years the percentage of cures increased to 24.6%. Most frequently cures resulted after Halstead's method of operating, which includes the removal of both pectoral muscles, carefully cleaning out of the axillary, infra and supraclavicular glands. The skin is widely removed. The question whether or not the operation should be undertaken when the supraclavicular glands are involved, must be further studied. On account of late recurrence the time for regarding the cases as permanently cured must be extended to five years.—*Abstr. in Zentralbl. f. Gyn.*, 1909, 550.

THEODORE J. GRAMM, M. D.

APPENDICITIS WITH LEFT SIDED PAIN.—Burkhardt has pointed out that the typical pain of appendicitis does not always begin on the right side. The possibilities of such an occurrence may be placed in three groups. Firstly, the early symptoms may have existed in more or less typical manner upon the right side and only secondarily from burrowing of pus, the encystment of diffused abscesses or from dissemination through blood and lymph channels the left sided pains have occurred. In a second group the symptoms may at once begin on the left side. Then there may be present displacement of the organ or of its end toward the middle line or to the left of it, or there may be present metastatic abscesses or burrowing of pus after the first attack with pain on the right side had passed. The third group includes cases of transposition of the abdominal organs when of course the pain would be felt upon the left side.—*Abstr. Jahresbericht u. Geb. u. Gyn.*, 1907, 168.

THEODORE J. GRAMM, M. D.

TUBERCULOSIS INFECTION OF CHILDREN FROM COW'S MILK.—Medin, of the Children's Hospital, of Stockholm, gave his experience with this subject at the International Tuberculosis Conference in Vienna, two years ago. He said the question of the infection of children with tuberculosis by means of milk is by no means solely a matter of bacteriology. We should have

more regard for clinical experience. Among 7,500 young children who died between 1842 and 1906, there were 595 who had tuberculosis. If tuberculosis affects young children, the disease acts like an acute affection. During the years above mentioned tuberculosis appeared several times as a severe epidemic, similar to an epidemic of other contagious diseases. The last epidemic occurred in 1881. It was confined to the first of the two departments. In both departments the children received milk from the same source; so that the epidemic could not have arisen from the milk supply. The same was true of previous epidemics. The cause which was apparently the same in all epidemics could be no other, according to Medin's opinion, than infection from one child to the other or from a nurse. Primary intestinal tuberculosis in young children has been observed but rarely. In 299 of the 595 children, the tuberculosis had affected several organs, it was generalized. In no less than 273 cases the disease was confined to the lungs and bronchial glands, where the disease was primary. Only in six cases of the 595 was the tuberculosis confined to the intestines and mesenteric glands, and could be regarded as primary. Neither the clinical nor the epidemiological observations, and much less the pathologico-anatomical studies indicated that the milk was the vehicle of infection.—*Abstr. in Zentralbl. f. Gyn.* 1909, 615.

THEODORE J. GRAMM, M. D.

A NEW METHOD OF STERILIZING RUBBER GLOVES AND SILK CATHETERS.—Rubber gloves are often used in gynecological and septic operations, and they would doubtless be more frequently used were it not for the difficulty of sterilizing them without deterioration which materially increases the expense. Heuser has devised a method for sterilizing gloves and silk catheters which does not affect their intactness. It consists in boiling them for a half hour in glycerine heated to 100 degrees or 115 degrees C. In view of the fact that superheated glycerine gives off corroding vapors, it is necessary to avoid overheating by using a specially constructed bath. This latter consists of a pan having double sides, between which is placed a layer of wire gauze for the purpose of diffusing the heat applied by the gas or alcohol flame. In using this method of sterilization it is necessary that the gloves or catheters be submerged in the glycerine, otherwise the exposed parts will be injuriously affected; therefore the author places the gloves in a flat wire cage which holds them under the surface of the glycerine. Some gloves which had been continuously boiled for twenty-four hours showed no deterioration of the material, whereas other gloves sterilized three or four times in steam did show the effects of the sterilization. The same was true of some catheters exhibited. Knives and scissors may also be sterilized by this method. The author suggests that the glycerine may be repeatedly used and very little is lost by evaporation.—*Zentralbl. f. Gyn.*, 1909, 585.

THEODORE J. GRAMM, M. D.

THE CAUSES OF ABORTION.—Oliver believes that syphilis is too often regarded as the cause of abortion. Although iodide of potash is often effective in habitual abortion, he believes this to be no proof of the existence of syphilis. He believes the explanation to be that calcium and potassium are important constituents of the uterine muscle. If these are absent or

if toxic substances have formed the tonicities, and reaction upon the organ have changed so that hemorrhage may occur. Therefore when this takes place the indication is to remove harmful substances and to supply those which are deficient. For this purpose iodide of potash, calcium chloride, potassium chlorate or digitalis may be used. If muscular tonicity is defective there is often also deficient nervous energy, and for this strychnia, arsenic, digitalis or phosphorus are to be given. Another cause of abortion, the author believes to be a lack of proportionate development of the uterus to that of the ovum due to fibromata in certain parts of the uterine walls, old peritoneal adhesions, sclerotic processes in the recto-vaginal fascia. Here the irritability of the uterus must be increased and may be accomplished with bromine, conium, and opium. Physical or psychic shock are also causes affecting the uterine tonicity. Seropian has tried to determine the cause of abortion in 5,000 cases. He found that defective hygiene during pregnancy with sexual excesses and overexertion at the usual occupation act upon the insertion of the placenta. A low situation of the latter predisposes to abortion under the conditions just named, and is the most frequent cause. Then comes abnormal location of the ovum, and faulty insertion of the cord, and then comes decidual endometritis and other decidual diseased conditions. A further group comprises malformations and fibromata of the uterus. General diseases like syphilis, albuminuria, infectious diseases, tuberculosis, heart diseases, this author also believes to be among the more seldom causes.—*Jahresbericht u. Geb. u. Gyn.*, 1907, 567.

THEODORE J. GRAMM, M. D.

THE CONDITION OF THE FEMALE GENITALIA IN HYSTERIA, HEART DISEASE AND CHLOROSIS.—Diepgen and Schroder found in women who later become hysterical that the first period is generally later appearing than in those women whose nervous system is intact, and it is usually weak and postponing. They regard this condition of the menses as the expression of defective bodily development which often predisposes to the later appearing hysteria. Hysteria itself exerts but little influence upon the amount of flow and the menstrual interval, but it is a common cause of dysmenorrhœa. Gynecological diseases occurring with hysteria simply represent an accompaniment of the disease, but if some causal relation may be demonstrated such diseases act as a determining factor similar to an injury in traumatic hysteria. A heart disease acquired in childhood retards the advent of puberty. In women having heart disease the menstrual period often remains weak. Even when heart disease causes other clinical symptoms, the heart diseases causes less disturbance than would be expected upon the type of the menstrual function when once established. On this account the authors believe that the disturbances of circulation are not responsible for the menstrual anomalies occurring with heart disease, but that the latter almost always result indirectly from the general weakness of the system induced by the heart lesion. The average age of puberty is decidedly increased in such patients who later develop chlorosis. In many cases of chlorosis the authors found a decided weakness of the menstrual function, although it was regular, in others they found the period delaying or associated with dysmenorrhœa; and all of these anomalies the authors ascribe to the defective bodily development. It is remarkable, considering the frequency of menstrual disturbances before the appearance of chlorosis,

how rare the cases are in which the period is secondarily affected after the appearance of other clinical symptoms of chlorosis. These secondary menstrual disturbances are not at all related to the amount of hemoglobin present. The authors assume or conclude that chlorosis is not the direct cause of the menstrual disturbances, but that both are mostly due to a general systemic defective development.—*Abstr. in Zentralbl. f. Gyn.*, 1909, 551.

THEODORE J. GRAMM, M. D.

THERAPEUTIC ACTION OF JEQUIRITY IN SOME CASES OF CARCINOMA.—The author of this article has published several observations regarding the use of jequirity in carcinoma of different parts of the body, and although he is very enthusiastic about the remedy, he hesitates to draw general conclusions until many other cases have been observed and experimented. In the different forms of epithelioma of the face and the lids he applied gelatinous discs or the fluid extract of jequirity with occasional use of deep injections in the body of the tumor of one or several drops of the liquid.

There is a general and local reaction following each application and necrosis of the growth with diminution of the same, and cicatricial formation, the action of the drug limiting itself exclusively to the abnormal tissues and sparing the sound ones. Incidentally, the author speaks of the favorable results obtained also in tubercular neoformations with the same method of treatment, a fact which establishes new clinical relations between tuberculosis and carcinoma.—Dr. R. Rampoldi, *Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

SUBCUTANEOUS INJECTIONS OF ALCOHOL IN THE TREATMENT OF BLEPHAROSPASM AND SPASTIC ECTROPION.—Many remedies have been tried in essential blepharospasm and the secondary due to affection of the conjunctiva and cornea and in ectropion of old age, especially of the lower lid, but without avail. Surgical procedures also have been advised, with the same results. After having read the experiments of Valude and Schlosser, who used injection of alcohol at the exit of the facial for spasmodic affections of the orbicularis, Fumagalli obtained splendid results in these affections with the same injections near the supraorbital nerve and for the ectropion of the lower lid in the region of this latter. The author thinks that the beneficial results are the effect of paralysis of the nervous filaments of the supraorbitalis and orbicularis. The solution which he has used is as follows: Alcohol at 96°, grams 30; distilled water, sterilized, 60 grams, without the addition of anesthetics, which he considers perfectly useless. One or two injections are ordinarily sufficient, but sometimes these must be repeated for several days.—Dr. Fumagalli, *Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

UREMIC AMAUROSIS FOLLOWING SCARLET FEVER.—A boy, aged 13 years, was admitted to the Municipal Hospital, Philadelphia, with scarlet fever in the desquamating stage and tonsillar diphtheria. Four days after admission uremia set in, with convulsive seizure, coma and complete amaurosis, the pupils being dilated and not responsive to light. Examination of the urine showed 2.75 per cent. albumen and anular casts. Amaurosis continued for nearly a week, when a gradual improvement followed,

and about five weeks later he was able to read large print. There was some tortuosity of the retinal vessels, with slight veiling of the disc margins, otherwise the fundus examination was negative. The pupils now reacted to light, and were of equal size. Further examination revealed contracted fields, with a symmetrical sector like defect in the inferior half of each field. There was no central scotoma. Vision: O. D.—5-45; O. S.—5-45.

Type No. 2 read with difficulty. No evidence of accommodative palsy. In spite of the antinephritic treatment only slight visual improvement ensued during the next five months, at the end of which time the patient disappeared from observation. In most of the cases of uremic amaurosis previously reported, vision returned to normal within eighteen to seventy-two hours and the pupils reacted to light. The retention of the papillary light reflex in the majority of instances, and the fact that homonymous hemianopsia has been observed in connection with uremia are in favor of ascribing the usual uremic amaurosis to a cortical lesion. Other cases where the pupils were not responsive to light, and still others where visible peripheral lesions accompanied uremic blindness, suggest that occasionally the more distal ocular elements may be involved.—Dr. A. C. Sautter, *Annals of Ophthalmol.* WILLIAM SPENCER, M. D.

EXOPHTHALMIC GOITER.—A new lid sign has been observed by the writer. It consists of the following manifestations: While on downward rotation of the globe the lower lid is gently fixed, the patient is then requested to rotate the globe rapidly upward while gentle retraction is made on the lower lid; the globe now ascends in an unsteady manner. Much in the same way as the upper lid does in the von Graef's sign. It is markedly accentuated in the presence of an exophthalmos, but is just as variable in its appearance as any of the other symptoms and no more value is attached to it than to any of the preceding ones. It has been found more often in the absence of exophthalmos than with it—however, most often in conjunction with a von Graef or Gifford sign.—G. F. Sucker, *Ophthalmic Record*. WILLIAM SPENCER, M. D.

STEEL INJURY OF THE EYE.—When the case was first seen, a few hours after the accident there was a slight injection of the ocular conjunctiva; the cornea revealed a linear cut about 8 mm. in length, which began at the upper and inner part of the cornea and extended down and out to the corneoscleral junction. The iris was likewise cut in a position corresponding to the lower and outer portion of this incision. There was no prolapse of the iris. The lens was turbid, and some opaque and swollen lens matter occupied a portion of the anterior chamber. The tension was reduced, while vision was restricted to light perception. An X-ray examination showed a large foreign body situated in the lower and inner posterior segment of the globe. It was successfully removed with a magnet through an incision made beneath the internal rectus muscle, and well toward the internal canthus. The piece of steel corresponded in shape to the segment of a circle, and measured 11 mm. in length and 4mm. at its widest part. The weight was $\frac{7}{8}$ of a grain. The final vision was light perception.—Dr. T. B. Holloway, *Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY A. LEIGHT MONROE,

Miami, Florida.

THE LEAN WOLVES. By R. del Mas, Ph. D., M. D. The readers of this article will, please, pay no attention to the shell of the nut I am going to crack for them, but satisfy themselves with the meat of it; more plainly, I beg not to be led to apologize for giving this article such a sylvan name. I will explain: *Wolves* stand for ravenous eaters; *lean*, for emaciated; and you and I for homœopathy.

Iodum was found by Courtois in 1811, and studied by Gay-Lussac in 1813 and 1814. It remained for the experimental therapist to give us the soul of such an individual. His hair and eyes are wont to be dark. His face looks old, aged, somewhat excited, pinched and sickly. You may often see scabs on his nose. When he was a child, he had membranous croup, the "saw-going-through-a-board" variety. He does not suffer from that any more; yet his large, indurated glands have not left him; and they will not either. He is sickly, dry, and debilitated, and still refuses heat of any kind, for he carries a fire with him. He will not listen to "warm wraps," only to a good meal, and often. He is weak, loses his breath on going up stairs, still he wants no heat. He is a queer lad. He tells us that *if he does not eat as soon as he is hungry, his chest aches*. This is due to a certain germ, the shape of which is still unknown. I could describe it to you, if you would listen to me. But . . .

Iodum has a ravenous hunger which eating relieves, but it soon returns; although he lives well, he continues to dwindle away, and his glands to enlarge. But, while he eats he feels like a prince, exceedingly well. His body and mind anxiety, his murder impulses, his different troubles, everything is relieved, if he only can eat; and he feels like eating all the time. Scientifically speaking, he has lost the habit of capability of assimilating his food. His thirst is extreme also, more so during perspiration; and he perspires so easily. *Iodum* is found in all walks of life.

Petroleum is also very hungry, chilly, suppurative, sensitive and emaciated. If his bowels are loose, his hunger is increased (*iod.*, *sulph.*); and he eats, although the food aggravates him. He has eruptions that disappear in the summer and return in the winter (*psor.*); in well-known streets he loses his way; and he will often wake up bewildered, thinking, from dreams, of being double in bed. His diarrhoea leaves him at night whether he lies down or not. All night his palms and soles burn (*sulph.*). About the heart he has a sensation of coldness (*nat. m.*). Whenever he rides (boat, vehicles) he is dizzy, seasick. He is cold in spots, scratches himself until becomes raw and cold; he itches in his openings. He also burns in spots, and is very chilly; he is quite irritable and quarrelsome; trifles

vex him; thunder storms aggravate him (psor.). If his eruptions are suppressed, diarrhœa follows. His appetite is really insatiable, and relieved by eating. (Reverse of cina, psor., phos.).

Psorinum, like *china*, cannot often sleep, or wakes from sleep rather on account of hunger. He gets up through the night and eats. The skin symptoms of *psorinum* are like those of sulphur; but the former is as chilly as *hepar* and *silica*, and wants to wear a fur cap, coat or shawl, even in summer. Sulphur never does that, although he requires a medium temperature (*natrum carb.*), is quite sensitive to hot air (venous circulation) and damp cold skin (skin surface); and again, he was never known to be so ravenously hungry as not to be able to sleep through the night without eating. All the discharges of *psorinum* have a carrion-like odor. He has a "hunger headache" that eating relieves. Like sulphur, he has a dry, unhealthy skin that slight exertion covers with a fetid and abundant perspiration, which once checked, is a source of many a cold. *Psorinum* has a cough returning every winter, and is complementary to sulphur; so is *tuberculinum*, another emaciating fellow.

The above excellent pictures most artistically drawn by Dr. del Mas in *July Critic*, are supplemented by "Lean Wolf" pictures, calling for *Natrum Mur*, *Phosphorus* and *China*, the symptoms of which while they are quite as graphically and comprehensively drawn are already so familiar to us all as not to necessitate repetition.

A. C. S. ON SNAKE BITES.—A writer signing himself A. C. S., appears in August *Progress*, and with the greatest *sang froid*, dissipates with a few well chosen words, all of the traditions of our boyhood, as well as the teachings of our professional life relating to this subject. He tells us in the first place, that alcohol has been proven useless in the treatment of snake bites. Alas and alack! and how we have been vainly hugging a delusion—or rather a whiskey bottle—to our hearts all through the happy days of adolescence, all through the halcyon fishing days of youth, only to meet this rude awakening. Where we were reared, to go fishing without a good supply of Spiritous Fermenti was considered to be flying in the face of providence. We can't remember, come to think of it, that we ever really tried it in snake bites, but it was a good antidote for "fisherman's luck," the saturated pantaloons and the sulphur sinking at the pit of the stomach. It was also valuable in stimulating the imagination and deadening the conscience, both of which were necessary to the manufacture of a high grade of fish stories. Banish the thought, "A. C. S.," we hope you are wrong.

Seriously, though, we have always thought that one of the prime factors in the life destroying properties of the snake poisons, especially that of the *Lachesis* and *Crotalus Horridus* was the disintegration of the blood, the separation of its elements and hence the stoppage of the blood stream, the clotting of the blood in the veins and the oozing of the serum into the tissues producing the tremendous swelling, the œdema, so early and marked after snake bites. We always were taught and taught in turn, that if sufficient alcohol could be injected to keep the heart pumping and blood current going until that stage passed, our patient would not die, but "A. C. S." says not. He says:

"Snake venoms act distinctly in two directions (a) paralysis of nerve

centers and (b) local tissue and blood cell destroyers. Prominently among the former we find the cobra, whilst the rattlesnake poison is a tissue destroyer of great violence." Continuing he says:

"In treating these proteid venoms the cardinal considerations are: (a) to prevent absorption, (b) neutralize the poison, and (c) support the patient during the ordeal. Apply ligature and treat the seat of puncture vigorously by enlarging, squeezing, sucking (with proper precautions) and washing. Potassium permanganate or chlorinated lime solutions are most effective. The former is prepared in the usual way; the crystals are dissolved to produce the characteristic rich color. The latter is employed one part crystals to twelve of water for the "mother solution;" of this solution one part is added to nine of water for immediate use. These solutions are employed on cotton at the seat of injury and in addition to this, injections are made in a circle about the sting hypodermically. To support the patient, hot drinks are given and hot packs are used liberally. If depression is pronounced and collapse is threatened, as sometimes occurs in cobra poisoning, perhaps we should say, is likely to occur, alternate heat and cold to the spine will often tide the patient over the crisis. Quantities of water will, if persistently used, stimulate rapid elimination by the kidneys. Our homœopathic remedies will here come in as life savers—arsenic, camphor, veratrum, lachesis, etc. The seat of injury should be treated as an open wound, with neutralizing antiseptics for at least a week; ten days would be better."

This subject we will only add—in its different theories is of great practical interest to us all, and its discussion well worth the time.

HOMŒOPATHIC REMEDIES FOR CHOLELITHIASIS.—Among drugs calc. carb. stands first, and Hughes claims that he has never had it fail him. The patient is inclined to obesity, perspires easily, there are stitches and pressure in the hepatic region, also a feeling of fullness and great dislike to clothing about the waist.

Belladonna is called for by the hot and fiery throbbing carotids, sensitiveness to light and noise or jar, and pains that come quickly and leave as quickly.

Nux vomica is highly recommended by Hempel and Arndt in this affliction on these indications:

Hepatic colic characterized by the sudden invasion of the most excruciating pain in the epigastric region and right hypochondrium, nausea and vomiting, spasmodic contraction of the abdominal muscles, coldness of the extremities, profuse cold perspiration. The pain is more severe than that calling for belladonna. It may be necessary to give the nux in large doses in five drops of the tincture.

Berberis will sometimes give relief, particularly if the pains extend down the track of the right ureter. Dr. Arsachouni, of New York, speaks highly in its favor.

In the homœopathic school remedies are given rather for the digestive and hepatic disorders that are known to underlie biliary lithiasis than with a view to dissolving the stones. The leading remedies are cinchona, nux vomica, calcarea carbonica, chelidonium, lycopodium, sulphur, etc., prescribed on the general indications. Dr. Ella M. Tuttle, February *N. A. Journal Homœopathy*.

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

ROUND ULCER OF THE STOMACH.—It has often been attempted to refer the origin of the round ulcer of stomach to *self-digestion*. Pavy succeeded in producing *ulceration of the gastric mucosa* by provoking arterial emboli in limited places of this tissue, with the result that self-digestion occurred in those places where the circulation was abolished. In harmony with Pavy's experiments are those of Paniom, who produced *hemorrhagic infarctions* with the subsequent formation of ulcers, in dogs, by embolic plugging of the small arteries of the gastric mucous membranes. Bunge claims, however, that it has very rarely been found that thrombotic or embolic plugging precedes the *round ulcer* in man. It has therefore been assumed that the *round ulcer of the stomach* was caused by abnormal increase of acid in the *gastric juice*, or in the contents of the stomach. But this supposition is utterly unsupported by facts. It should be remembered that the *gastric ulcer* is generally situated in the *pylorus* and in the *small curvature*, very seldom in the *fundus*, where the acidity is greater. At any rate the etiology of *gastric ulcer* seems to be still involved in obscurity.—*Precis de Physiologie*

IMMUNITY OF THE GASTRIC EPITHELIUM.—In regard to the immunity of the epithelium, *vis-a-vis* of the digestive ferments, which also exists in the *intestinal epithelium*, one is now inclined to attribute it to the production by the *living cellular protoplasm* of substances with an antagonistic action, capable of neutralizing the effects of the ferments, and which have been called *antiferments*. Very probably it is in such a medium, that *ascarides* and *taenia* enjoy also this immunity. On the other hand, *living tissues*, as the leg of a living frog and the ear of a rabbit, when introduced into the stomach by means of an artificial fistula, are perfectly digested. And how about the report by the local press of Philadelphia of the singular ejection by vomiting of a lizard-like creature which had sojourned for a whole year in the stomach of a young farmer of Georgetown, Del., causing pains which led many specialists to diagnose cancer? Could such a thing have occurred, and the medical journals keep silent about it?

IMPORTANCE OF GASTRIC DIGESTION.—Czerny has demonstrated that extirpation of the stomach with union of the cardia to the pylorus is perfectly endured by dogs. The animal operated does not pine away; he is only obliged to swallow his food slowly, not being longer able to accumulate it in this digestive cavity. Pachon has not even been able to provoke any trouble by forcing the ingestion of putrefied meat to a dog thusly operated. Important as *gastric digestion* is, it does not seem to be indispensable to support life, when replaced or supplemented by intestinal digestion.—*Precis de Physiologie Moderne*.

MODIFICATION OF THE GASTRIC MUCOSA.—Dr. Blatter has selected for his researches on the subject, the dog, an animal whose cycle of digestion is the best known. He remarks that certain animals are intoxicated by *phosphorus*, while others are so by *bicarbonate of soda*, and for this reason he undertook his task with these two drugs. The modifications he found in the *gastric mucosa of dogs*, after they have been absorbing *phosphorous oil* for seven consecutive months were very characteristic. The mucous membrane of the *greater curvature* was covered with hemorrhagic dots, while that of the *pylorus* was turgid. The *cells of the pyloric glands* were turgid. The *cells of the pyloric glands* underwent *granulo-fatty degeneration*. The fatty degeneration of the cells seems to have its point of departure around the *nucleus*, and appears under the form of minute drops, disseminated in cystoplasmic network. In the advanced stages the fatty granulations coalesce, forming fatty spherules dispersed in the *vacuoles of the protoplasm*. In the region of the *greater curvature*, the bordering cells of *pepsin-glands* remain sound; the principal or *central cells*, on the contrary, exhibit important changes in the cystoplasma, which may terminate, at a late analysis in fatty degeneration of the cells.

Another dog, subjected to the daily ingestion of 10 grammes of *bicarbonate of soda*, wasted away and had *vomiting*, which returned periodically, every eight days, or thereabouts (*a modality I should say*). At the autopsy the stomach appeared congested, but without any erosion or hemorrhage. The *mucous cells* of the pyloric glands did show the same alteration as those observed under *phosphorus*. The *principal cells* of peptic glands of the greater curvature had a peculiar clear aspect, with an apparent cystoplasmic network, but no fatty degeneration was noticed. The *bordering cells* remained intact. All these facts demonstrated that each class of the *gastric cells*, react in a special individual way. The pyloric cells, the most fragile of all, suffered a *granulo-fatty transformation*. The chief cells of the *peptic glands* are altered, but not as seriously as the preceding ones. Finally the bordering cells seem to be the most resistant, for they remained sound, even after the ingestion of large quantities of *phosphorus* and of *bicarbonate of soda*.—*La Semaine Medicale*.

How far experiments on animals may improve our knowledge of disease, I am at a loss to say, but we must all admit they are inferior to our provings on the healthy human organism.

EXPERIMENTAL STUDY OF LACHESIS.—A resume of the labors and researches of Dr. Sidorenko, of St. Petersburg.—The experiments were made on 14 dogs and 8 rabbits. The experimented animals received an injection of 5 drops of *Lachesis* mixed with 1 cubic centimetre of distilled water. The animal proofs were treated with an analogous dose of *alcohol*, 70°. The white globules of the blood were counted before the injection in both. Then the blood was examined and the globules counted again after the injection. At the end of two minutes, five minutes, fifteen minutes, half an hour, one hour, twenty-four hours, and finally two days.

Two series of experiments were made. In the first series, the injection was hypodermic (dogs and rabbits); in the other, the injection was made direct into the external jugular vein (dogs alone), with the following results: The reaction was about the same in both, dogs and rabbits, and all

the experiments exhibited, from the very start, an insignificant medium *hypoleucocytosis* with consecutive *hyperleucocytosis*.

This observer gives us three tables expressing the absolute number of leucocytes in a cubic millimetre, before the injection; then the figures are preceded by — and +, showing the diminution and increase after the different intervals of injection, and finally the decimal fractions with the signs — and +, expressing the diminution or the increase in relation to a single globule. These decimal fractions give a precise idea of the proportion of leucocytes in the different periods of the observation. But these tables are not necessary for our purposes, so we omit them. Important, on the other hand, are the conclusions arrived at by this authority, which are as follows:

(1) The *hypoleucocytosis* provoked by *Lachesis* 6, becomes evident at the end of five minutes; it is four times more intense than that in the animals held as proofs. (2) After fifteen minutes this *hypoleucocytosis* is replaced by a well defined *hyperleucocytosis*. (3) In general, the diminution in the amount of leucocytes provoked by *Lachesis* 6, takes place at once. At the end of fifteen minutes, the increase becomes less, and attains its maximum at the expiration of twenty-four hours, and more manifest still on the second day. In the experiments made with the proofs, the *hypoleucocytosis* is first almost nil. At the end of fifteen minutes *hyperleucocytosis* is produced, but it is slight, and on the second day entirely disappears. (4) *Lachesis* 6, at the beginning of the experiment, causes a rapid and intense *hypoleucocytosis*, with a very accentuated and prolonged consecutive *hyperleucocytosis*. The proofs, on the contrary, give an insignificant *hypoleucocytosis*, but, on the other hand, evince a distinct, but short *hyperleucocytosis*.

The blood then should be considered as capable of given a very perceptible reaction to this infinitesimal irritation. In fact 5-1,000,000,000,000 of a drop of *Lachesis* 6, in 5 drops of alcohol 70°, produces an effect entirely different from that obtained in the animals retained as evidence.—*Revue Homoeopathique Francaise*.

COLD WATER COMPRESSES AS A LAXATIVE.—When I commenced, two years and a half ago, to employ this *new method of purgation*, and when I later published it in the *Journal des Practiciens*, I had not taken notice of the thesis of Dr. Berthe, made public on March last, and I ignored this manner of treatment as employed by the Chinese.

Although very grateful to our honorable confrere for this historical account, I reserve the opinion that his therapeutic measure remains new to all: only to please Dr. Berthe I may add: Except to the Chinese or to those familiar with Chinese medicine.—Dr. Leon Rabinovici, of Bucharest. (A pert but polite controversy.)

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NATRUM MURIATICUM—ITS ACTION ON MUCOUS MEMBRANES.

BY

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(Read before the Homœopathic Medical Society of the State of Pennsylvania).

NATRUM MURIATICUM—Sodium chloride, or “common salt,” is more widely distributed in nature, and enters into more combinations—chemical or physical, than any other substance excepting water (H^2O).

Whether we speak of the most sublime thing in nature—the mighty ocean, or the highest and most wonderful of all God’s creation, as exemplified in man, sodium chloride seems to be a necessary and material constituent. It is present in all the tissues and fluids of the human body,—the total amount, in an adult, being about one-fourth of a pound. It is undoubtedly one of the most important of the mineral constituents of the human body, not only on account of its distribution, but on account of the important part it plays in nutrition,—being second only to the *lime salt* (calcium phosphate).

What wonder then, if sodium chloride (natr. mur.) plays such an important part in the vital activities during health, that it should also have a useful sphere in disease, and so we homœopaths (thanks to Hahnemann) find it to be. Whatever physical, chemical or physiological properties Natrum muriaticum may possess, they are far surpassed by the dynamic, curative effects of the drug, when administered according to the “Law of Similia.” Natrum muriaticum is the Waterloo of the medical skeptic. Allopaths ridicule it; “scientific” homœopaths ignore it; and alas! too many of us deny it that fair trial which

it deserves, and which is so necessary for a correct understanding of its virtues. There are several reasons for this: In the first place it is difficult for some of us (especially for those who have not tried it) to see how it is possible for an attenuated dose of *Natr. mur.* to produce curative effects, when we are daily taking into our bodies great quantities (comparatively speaking) of the drug in its crude form, and yet without *curative* effect. As a matter of fact it is possible to take great quantities of "salt" into the system, and yet the *economy* be actually *starving* for salt, because it cannot assimilate it. To those of us therefore, who can only see "common salt" in *Natr. mur.*, it is *prima facie* evidence that we are "on the wrong track," and the "truth (of homœopathy) is not in us."

In the second place this is a "strenuous" age. People who have been sick for years want to be, and expect to be, cured in a few weeks or months, and are impatient if they do not see "some improvement" in a day or two after taking the remedy. Now, *Natr. mur.* is a long-acting and a deep-acting remedy, but rather "slow" in producing its effects, that is, the patient thinks so, hence we are apt to cast it aside as inert or useless, when a continued trial of the properly attenuated drug would give us wonderful and even brilliant results.

Natrum muriaticum is one of the deepest-acting anti-psoric remedies in our whole materia medica. It corresponds to those slow, insidious diseases which are a long time in developing, but, once developed, are of prolonged and uncertain duration, because, as a rule, they are *vital* (chronic).

Diseases of mucous membranes belong to this class, and since most of these are catarrhal at some stage of their existence, we can see how *natrum muriaticum*, in its very nature, corresponds to the varied manifestations of that hydra-headed monster,—CATARRH.

In *Natr. mur.* the characteristic discharge from mucous membranes is watery, or like the white of an egg—raw or cooked—and is usually acrid and excoriating.

Natrum mur. has a decided action on the EYES. It cures blepharitis when the eyelids are thickened, reddened, and disgusting in appearance—looking like raw beef, with an acrid, watery discharge, excoriating the sickly, yellow, greasy-looking face over which it flows. With these objective conditions we find a "sensation" as if the eyes were full of sand." We also find one of the grand characteristics which runs through the

whole remedy, namely, "a sensation of *dryness* in the mucous membranes." Natrium mur. will be found especially serviceable in cases of eye trouble which have been treated with nitrate of silver, used as a caustic.

On the NOSE and THROAT Natrium mur. has a very satisfactory action. Here also we find soreness with a sensation of *great dryness*, as if the mucous membranes would crack. There is loss of the sense of smell and taste (Puls.), and the discharge if any, is clear mucus, which is transparent like the white of an egg, but sometimes yellowish-white in appearance. With Natrium mur. I have *cured* some persons, and relieved others of a condition in which there were violent paroxysms of sneezing, occurring in the early morning, as soon as the patient attempts to rise. The mere changing of the upper or lower limbs to a cooler place in the bed, or the change of temperature incidental to uncovering the body, are all sufficient to bring on these violent attacks of sneezing (compare also Sabadilla, Wyethia, and Rumex crisp). These cases to me indicate a chronic catarrhal state, of long standing, and are very difficult to cure, but I believe the action of the higher potencies of Natrium mur. to be capable of eradicating even such a deep-seated miasm as *hay-fever*,—not its *acute* manifestation, remember, but the underlying psoric cause.

The throat comes in for its share of trouble. In cases of chronic catarrh of the throat, you may nearly always elicit a history of its having been "burnt out," probably with lunar caustic, and an examination will show a glazed appearance, with sensation of great dryness, as if the mucous membrane would crack, and the patient declares there is a splinter or a fish-bone in his throat, and insists that you look for it carefully. Now Hepar, Nitric acid, Argent. nitr. and Alumina have this symptom as well as Natrium mur., and ought to be compared. This catarrhal condition may extend to the ears, causing a dry catarrh of the middle ear with a sensation of "cracking in the ear when masticating." The lips and corners of the mouth are dry and cracked.

The TONGUE may be dry and glazed, or shining, but probably more interesting is the *mapped tongue*. It seems as if there were ring-worms all over the tongue (Ars., Lach., Mer., Nitr. ac., Kali-bich, and Taraxacum, but I have also removed them with Ant. Crud.). To those of us who have seen well developed cases of scorbutus, the sensitive, spongy, bleeding gums—

pouching down over the teeth, and the putrid odor from the mouth, forms a striking picture of what Natrum mur. can cause and cure, for this group of symptoms is very apt to arise in persons who live for too long a time on salt meats and canned foods without sufficient variety of fresh fruits and vegetables.

Natrum muriaticum affects the whole alimentary tract—from mouth to anus. Some of its symptoms are very striking and characteristic. The natrum mur. patient has *intense thirst* for *large quantities* of *cold* water—drinks *much* and *often*, and water *agrees*. This is in rather striking contrast to the Ars. patient, who drinks *small* quantities of water, *often*, and water *disagrees*. The Eupatorium patient drinks large quantities of water, often, but it causes vomiting.

The Natrum mur. patient also has a *ravenous hunger*; no patient is more hungry, yet he *loses flesh*, even while eating well. (Arbrotanum Baryta carb., Iodine). This emaciation is principally around the neck, however, like Calc. phos. The Natrum mur. patient feels *better* on an *empty* stomach, which symptom is directly opposite to such remedies as Anacardium orientale Iodine, Chelidonium, and Petroleum which are *relieved* by *eating*. One of the most prominent key-note symptoms which has probably led many prescribers to natrum mur. is: "*Great aversion to bread.*" Now this is peculiar, inasmuch as the patient may previously have been very fond of bread, but now bread is disgusting to him, and strange to say, disagrees, as do also most farinaceous foods. We must not infer from this that the Natrum mur. patient has no cravings, or no desires. He craves beer; bitter things; salt; and sour things; oysters; fish, and milk. The stomach and intestines are distended with gas, showing the slowness of digestion due to the chronic catarrhal condition of these organs.

A troublesome symptom, found mostly in old women, but also in men, is *chronic diarrhœa*. Unless you get the right remedy, you may treat these cases unsuccessfully for years; but with such remedies as Natrum mur. (high), and Natrum sulph., you will make many brilliant and permanent cures. I have cured many cases of long standing with Natrum mur. The patient is usually an elderly person, with a brown or yellowish complexion, with fulness and discomfort in the gastric region. Following this, there develops a diarrhœa which comes on early in the morning, as soon as the patient *moves* in an attempt to

arise. The desire is *sudden*, and *urgent*, necessitating the utmost haste on the part of the patient. The stools are thin and watery, without form, and yellowish or brownish in color. As a rule, there are three or four stools during the early morning or forenoon, and as many more during the afternoon and evening, but very seldom, if ever, any at night, unless the patient has been very indiscreet during her evening meal. The stools are practically painless, the only premonition the patient has is a rumbling of gas in the intestines, and then the desire, the patient being unable to decide whether gas or faeces will escape (Aloe, Mur. ac., Olean., Pod.) Now, my friends, these symptoms may have been present for years, and the patient has become emaciated, and may have many other symptoms—nervous and mental, but they will almost certainly be Natrum mur. symptoms, and a faithful trial of this simple and neglected drug will give you very satisfactory results; but it *must be given high*—never lower than the 30th potency, and as much higher as you care to go. I have also used Natrum mur. in almost the very opposite condition, namely, “Constipation.” Here there seems to be a deficiency of secretion, in fact, a sensation of great dryness of the mucous membranes of the rectum. The result is a most obstinate constipation. I find this condition in women (seamstresses) of sedentary habits, and nervous temperament, or who become nervous as a result of too close application to duty. The result is a sensation of constriction of the anus, which, combined with the other symptom of great dryness of the mucous membrane, cause an inability to defecate. I give these cases Ignatia, as the *acute* remedy, and follow it with its *chronic*, which is Natrum mur., and I have had most satisfactory results. I have also used Natrum mur. in the obstinate constipation of chlorotic girls—when the other symptoms agree.

When we consider that about 10 per cent. of the total amount of sodium chloride in the body is excreted principally through the kidneys each day, it is not astonishing that we should find a decided action on the urinary organ. In fact, some persons would have us believe that such serious diseases as diabetes, and Bright’s disease of the kidneys, may be directly traceable to the ingestion of too large quantities of common salt in our food. If such effects are probable, it seems to me they could only be possible as a result of defective elimination, which would place the ultimate cause at a more remote point.

One point might be noted concerning the similarity of *Natrum mur.* symptoms to those of diabetes, *c. g.*, behold the *emaciated* form, the *dry mucous membranes*, the *unquenchable thirst*, the shining tongue (sometimes mapped), the *ravenous hunger*, the extreme weakness, the passing of large quantities of urine, the sickly countenance, and the mental state of the diabetic, and lo, it seems almost as if we were reading *Natrum mur.* from the "Guiding Symptoms."

Natrum mur. cures a cough, when there is a sensation of tickling, either in the throat, or in the pit of the stomach. The cough comes on, or is worse in the evening when lying down and becoming warm in bed, and is relieved by sitting up in bed. I have cured many such cases. I have not emphasized its hæmorrhagic tendency very much, because every housewife uses *salt* in case of "*hæmorrhage from the lungs*" and many times the bleeding has stopped before the physician arrives. This action of *Natrum mur.*, I believe to be purely mechanical.

The sexual organs come in for their full share of catarrhal trouble under *Natrum mur.*, but time forbids their mention.

Many other prominent and characteristic symptoms of *Natrum mur.* might be mentioned, but would not be apropos to the subject of this paper. In prescribing, however, we must take the whole patient into consideration. I will ask you to recapitulate in your mind the following points: Remember the *great hunger*, yet *emaciates*; remember the *unquenchable thirst* for *large quantities of cold water*, often; remember the use of *natrum mur.* in the bad effects on tissues cauterized with nitrate of silver, whether in the eyes, nose, throat, uterus, or injections for specific urethritis; remember the "sensation of *dryness*" of the mucous membrane, for this characteristic of the action of *Natrum mur.*, and occurs on the digestive, respiratory, and the genito-urinary system; remember the general appearance of the *natrum mur.* patient,—pale, sickly-looking, emaciated and the face looks as if *greased* (*Thuja*, *Psorinum*, and *Plumbu*).

In its relationship *Natrum mur.* antidotes: *Arg. nitr.*, quinine, and bee-stings. *Natrum mur.* is antidoted by: *Spirit. nitr. dulc.* *Phos.* (bad effects of salt in food); *Arsenicum* (bad effects of sea-bathing).

Natrum mur. is the *chronic* remedy of *Ignatia*, also of *Apis mel.* and *Capsicum*. It is complementary to *Apis mel.*, and *Arg. nitr.*, and follows both remedies well.

Natrum mur. is followed well by *Sepia* and *Thuja*, also by Hepar. sulph.

Natrum mur. is indicated in persons whose complaints are relieved by a residence at the seashore.

Natrum mur. enters deeply into the life of the individual, as is evidenced in chlorosis, or in pernicious anæmia, when the mucous membranes lose their pink color, and turn yellow, or even white—the cut finger bleeds water—the menstrual flow is simply a leucorrhœa.

In these days when the origin of everything, even life itself, is being diligently sought for, it may be noted that common salt (natrum mur.) most likely plays an important part in that interesting problem—the determination of sex. It is an old observation that “salt-eaters rarely have male issue.”

Natrum mur. is a great remedy, far greater than the scope of this paper would indicate. There are many who doubt, and many more who deny it any therapeutic or curative action whatever. To such, I say, give it a fair and unprejudiced trial, and publish the *failures* to the WORLD.

THE ACTION OF SEPIA UPON THE MUCOUS MEMBRANES.

BY

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(Read before the Homœopathic Medical Society of the State of Pennsylvania).

THE action of this drug, *sepia*, upon the mucous membranes is of marked and easily verified value, well repaying careful study in this field, in the areas, according to usefulness, first of the bladder and genitalia of both sexes, second in the bronchial tract, third in the alimentary canal, fourth in the conjunctivæ and nasal linings. Of course no successful prescription can be assuredly made on the symptoms of these regions alone, as the peculiar nervous, mental, muscular and secretory phenomena, together with the sense of temperature, and the appearance of the skin, must be considered before a decision is arrived at, in any individual case.

To follow the order just suggested, the first involvement in most provings is in the urinary secretion, affecting the mucous membrane of the uropoietic organs by its passage over them, causing inflammation of the mouth of the urethra, with shoot-

ing pains and soreness extending upwards. (The pains of ignatia shoot upwards, but there is no marked soreness.) Afterwards there is cystitis, of an aggravated, chronic type, with yellowish green muco-purulent discharge, this color and character being frequent in all the mucous discharges of sepia. Its presence lends a peculiarly fetid, highly offensive odor to the urine, resembling that of calcarea, but not so rankly urinous as that of nitric and benzoic acids. The odor suggests the presence of residual urine, which indeed is often found in cases needing sepia, as in prostatic enlargement, and in gravel.

Its use in gonorrhea and gleet is based upon these findings, and it is many times exceedingly useful and is always to be thought of in connection with cannabis, hydrastis, hepar, pulsatilla, and other like muco-purulent remedies.

In the female, leucorrhea is very often benefited, especially in those past middle life, who must often lie down, and who are squeamish and fickle in their appetite, and very chilly.

Prolapsus is common, too, both as cause and consequence of the vaginal discharge. The latter is sometimes checked, resulting in a sort of dry catarrh of the vagina, rendering it repugnant to contact, which is disagreeable and painful. The main rivals of sepia in female complaints are hydrastis, pulsatilla, kreosote, and calcarea. All of these may help to restore arrested menses, and should be used with caution in suspected pregnancy.

The action of sepia on the bronchial mucous membrane is to produce a continuous dry, or "useless" cough, day and night, and worse in the cold. Later, there is a heavy yellowish-green sputum, as in later stages of consumption, where it is often palliative, far more so than the dangerous opiates of many names, which relieve only by locking up secretion, and so often precipitate a fatal termination of the case. In prolonged whooping cough with abundant mucus it is of great value, vieing with corallium rubrum, and kali sulfuricum.

In the alimentary canal, there are present, in sepia cases, the same sort of mucous secretions already described.

The lips and gums are sore and swollen, the tongue sore at tip, and often coated heavily white, as in antimonium crudum.

The breath is fetid, there is a clammy mucous in the throat, and putrid risings from the stomach. The patient gags and vomits easily, as on brushing the teeth, on the smell of food,

even on disturbing or unpleasant news, or disagreeable domestic happenings.

There is hawking, with perhaps bloody mucus, and a sensation of a plug in the throat. Many conditions suggest a comparison with ignatia, but the abundant secretion which is present or trying to come on in sepia cases, serves to distinguish satisfactorily.

The taste of food is too salt, contrasting with pulsatilla, where the taste is too fresh, and more salt is craved.

The stools, generally slow and scanty, are often diarrheic, frequent, but not copious, and worse after boiled or sterilized milk, as in bottle-fed children, suggesting the preferable use of raw milk heated only to blood temperature, as better than milk that is Pasteurized or sterilized. In fact, the value of the "Pasteurized" milk of cities where funds are subscribed for its distribution among the poor, lies not in the heating, but in the selection and cleanliness of the milk and its careful handling. Heating, or even prolonged boiling, will not kill the really dangerous germs of bad milk, but most of them are readily excluded by care in the choice of cows and in their proper cleanliness, and that of their attendants, with the dishes and other receptacles of the milk.

And the knowledge of the curative sphere of sepia helps us to this conclusion, by curing diarrhœa caused by poor milk, the germs being antagonized by anti-bodies whose formation is stimulated by the exhibition of the sepia.

Sepia may be thought of, (with the caution suggested above) in the constipation of pregnancy. Always there is the sense of a lump, described as an apple or a ball or a plug, felt in the rectum or stomach, or other part affected with the sepia symptoms.

There are hemorrhoids, with the sensation of a ball, with pains and soreness darting upward, perhaps with bleeding, and often with involvement of the bladder, as in aluminum.

Itching eruptions, also sycotic warts, or condylamata are common, suggesting venereal origin of the symptoms.

Many eye symptoms are met with, chiefly of the lids, like styes, itching, incrustation, etc.

Nasal catarrhs are torpid, chronic, profuse, green and yellow, as in pulsatilla. In sepia the action is more deeply seated, and even the bones may be involved as in ozoena.

Here hecla lava, slag, and silica are to be compared.

There is no acidity to the discharges, however, as is common in the mercurial and iodide catarrhs, in many cases.

Laundry workers are good sepia subjects, but they also suggest very strongly bryonia and calcarea.

The sepia subject is nearly always tired, or as Mark Twain would say, "saturated with rest."

There is slow reaction, and recoveries are not always speedy, but when the type is clearly seen, sepia may be most confidently given.

OBSERVATIONS ON PURE BACTERIAL TOXINS.

BY P. W. SHEDD, M. D., NEW YORK.

(Read before the Homœopathic Medical Society, County of New York.)

BEFORE consideration of the subject-matter of this paper, Pure Bacterial Toxins, it will be of advantage to note a fact furnished by an investigator of the old school, if a laboratory-worker looking for, and cognizing facts, may be classified with any "school."

Ford, of Johns Hopkins, investigating not micro-organisms but the action and effects of rhus toxicodendron in the animal economy, found that the blood of the animals thus treated contained a new and abnormal constituent, viz.: a rhus antitoxin. He demonstrated this to be a specific antibody by injecting the rhus antitoxic serum into healthy animals which then resisted not only the fatal dose, but even multiples of it, whilst the controls succumbed. In other words, he produced immunity to the toxic effects of a dead plant whereas the antitoxic sera of other investigators have been directed against living germs, more or less complex and mysterious in metabolism and biology. Ford's work should be enormously interesting to those of us who are not drug-nihilists. What are its vital mechanics? Into the animal organism is introduced a foreign, inimical, and if the dose be large enough, even fatal rhus toxin. The animal economy reacts by producing a specific antitoxin, specific for rhus for it immunizes other and healthy animals against even multiples of the fatal dose of the rhus toxin. What we are chiefly interested in, however, as specialists in drug-therapy, is the mechanism developed

in the original animal, not the immunity conferred by his blood-serum upon others. The point of intense interest in this laboratory work of Ford is that the animal attacked by rhus toxin begins immediately to manufacture an individual and specific rhus antitoxin. Whether its biochemic mode of action is to be explained by Ehrlich's side-chain or some other is immaterial.

As Prof. Kopp, (*Munchener Med. Wochenschrift*, no. 19, 1909), remarks: "We go too far if we take Ehrlich's highly interesting and elucidative *theory* of biochemic processes as an absolute scientific truth and axiom." Our intense interest is centered upon the fact that the individual reacts to the drug or toxin action by developing an individual and specific opponent body or antitoxin, and furthermore (a fact not emphasized by Ford, probably because it is plainly logical), the quantitative and qualitative properties of the antitoxin will be in proportion to those of the toxin or drug.

What has been said is, naturally, perfectly intelligible to the homœopathist, but a clinical illustration may not be unhelpful. When we prescribe, or when the consultant prescribes rhus in a case of rheumatism, he does so not because rhus "is good in rheumatism," but because the rhus pathogenesis shows a systemic reaction more perfectly similar or specific to the systemic reaction made by the patient against the cause of rheumatism. The consultant, therefore, prescribes the rhus toxin instead of the colchicum toxin previously used; the patient responds with an increased output of specific antitoxin and finally succeeds in immunizing himself, thanks to the consultant.

"As every disease is due only to a specific morbid derangement in sensations and functions of the vital force, the homœopathic restoration to equilibrium of the vital force when deranged by a natural morbid agent, is accomplished by the administration of a medicinal agent, selected because of an accurate similarity of symptoms whereby a somewhat more powerful, specific or similar artificial morbidity supersedes, as it were, the weaker, similar natural disease, whilst the instinct-like vital force now merely, though more strongly, medicinally affected, is compelled to direct an increased amount of energy. But because of the shorter duration of action of the morbid medicinal agent, the vital force soon disposes of it, and relieved now of both the natural and the artificial morbidity is

again able to carry on the life processes of a healthy organism."

The above paragraph shows how intensely interested S. Hahnemann would have been in modern laboratory work.

Ford's data give us what may be dubbed scientific, modern scientific, insight into drug action—the word scientific, is done to death nowadays—but Ford's data likewise confirm inexorably, specifically, that which, if there be sufficient vital force to respond to the stimulus and the prescriber be fortunate enough to have the specific remedy, we term the law of similars. Because we do not always get the ideal result in therapeutics does not negate the law. We have not conformed with the requirements. A book on a shelf will not demonstrate the law of gravitation unless it be pushed off.

With so brief an introduction we may gradually approach our bacterial subject by noting that that clinical and philosophic genius, S. Hahnemann, M. D., clearly discerned the infective origin of lues, tuberculosis and gonorrhea long before the birth of bacteriologic science, and, in a pamphlet published in Leipsic, 1831, "On the mode of Propagation of Asiatic Cholera," he sees, by clinical vision alone, "the enormously increased brood of those excessively minute, invisible, living creatures so inimical to human life," composing the cholera infection long before Robert Koch demonstrated the cholera vibron under the 1-12 lens of the modern microscope, and, faithful to his precept, "the first and only duty of the physician is to heal the sick," gave the four great curative remedies in the disease.

If the modern homœopathic school, as a school, had a laboratory or research man capable of profiting by the clinico-philosophic hints and directions given by the old man in the *Organon*, the *Chronic Diseases*, and other literature, the homœopathic school would no longer suffer the opprobrium, well enough deserved, of having contributed nothing to the data of modern science. In no institution of research, however, though founded as is the Rockefeller Institute by one for whom and for whose family homœopathy alone is permissible, do we find a scientist who has had the benefit of homœopathic training and clinical practice. The "school" merits all the opprobrium cast upon it.

With the preceding observations, which we consider essen-

tial to a consideration of bacterial toxins, the subject-matter of this paper may be entered upon.

The homœopathic school has been familiar (since 1870) with what have been termed nosodes or disease causes or products—bacillinum (made from phthisical sputum), the tuberculinum of Swan, diphtherinum, medorrhinum (made from gonorrheal pus) variolinum, (from the small-pox pustule), etc., etc. But, with the genesis of bacteriology due to Koch, (1881), a therapeutic field was opened up whose possibilities the homœopathic school should have been the first to comprehend and utilize.

There has always been a justifiable pride in our pharmaceutical products, but we must not neglect the possibilities of bacteriology in furnishing pure and specific products directly related to numerous morbid processes and conditions, which are actually and acutely due: First, To a receptivity which we may dub diathetic or constitutional or inherited; second, To a definite bacteriologic or protozoic colonization in a medium suited to them.

If now we have pure bacterial toxins, not disinfected, carbolized, formolized or embalmed,—a product emanating from the microscopic plant, and not contaminated as are the present nosodes with many and various bacteria or the debritus of dead tissue-cells,—for example, medorrhinum, bacillinum, the sarcode pyrogen made from rotten beef, swarming with micro-organism including, it is true, the putrefacient, septicemic protens vulgaris but likewise much corruption—if then, we have the full series of toxins derived from the pathogenic bacteria, we have added to the materia medica instruments of precision having enormous therapeutic value in infective diseases; drugs whose action is specific in nature; whose pathogeneses are written with the living finger in countless bacterial infections.

All cases of infection, such as diphtheria, present characteristic stabile phenomena as well as labile or differential or individualizing symptoms. It is rational to assume that a pure diphtherin or toxin, in accordance with the vital mechanics developed in Ford's experiment with rhus and noted in Hahnemann's theory of drug-action, will be found of value in the specific infection.

Whether, clinically, such specific and properly exhibited toxin best serves as the prime or chief remedy with the differ-

ential bur—or proto-iodide, lac caninum, phytolacca as inter-current or *vice versa*, can be determined only by clinical experience.

Whatever drug stuff is used, whether the poison of the ivy or the poison of a microscopic plant, such as the bacillus diphtheriæ, it has been proved by the modern laboratory that the animal organism fabricates an individual, specific, corresponding anti-toxin as a vital, biochemic reaction.

In a pure bacterial toxin, we certainly possess a drug-force extremely similar to the invading natural or living morbid agent or its products, and hence forcing the increased manufacture by the animal organism of a curative, expelling anti-toxic, bactericidal or physio-chemically neutralizing substance.

* * * * *

A series of pure toxins, then, should be a valuable specific prophylactic and curative addition to a materia medica which is useful only when governed by the law of similars. Dull must be the mentality that cannot deduce from the laboratory experiments, the unique and simple specific law of cure by the use of drugs.

* * * * *

The pathogenic micro-organisms whose toxins we are preparing, include the etiologic factors in diphtheria, tuberculosis, tetanus, typhoid, leprosy, influenza, pneumonia, cerebro-spinal meningitis, gonorrhea, anthrax, cholera, pertussis, the pathogenic fungi and protozoa—all morbid conditions actually due to pathogenic micro-organisms.

The method of toxin fabrication followed by your speaker, begins with the growing on a suitable solid nutrient medium in large Petri dishes of absolutely straight or uncontaminated cultures. When growth is complete, the bacteria are removed and one-half of the yield is digested with alcohol for from 1 to 3 weeks. The other half is suspended in sterile distilled water and subjected to increasing temperatures on from 4 to 6 successive days. The alcoholic and aqueous extracts are then brought together, passed through Berkefeld filters and the content of alcohol determined necessary to hold the particular toxin in solution. Standardization, as far as is possible in such products, is determined by an opacity test of the combined suspensions.

The difficulty of this work, even so trivial a thing as its cost,

can be comprehended only by trying to do it. Of two great (?) biologic forms in this country to which application was made for certain pure suspensions, one refused to undertake the work, and the other sent suspensions which may answer for their style of vaccines but hardly for this work. The cultures, therefore, have to be grown at home. Sepsin, the toxin of the *prodeus vulgaris*; staphylocin, the toxin of the *staphylococcus aureus*, *albus*, *cibreus* are ready for indicated use; typhoidin is in process of manufacture; diphtherin then follows, etc., etc.

CLINICAL HOMŒOPATHIC REMEDIES IN NEUROLOGICAL PRACTICE.

BY WILLIAM F. BAKER, M. D., PHILA., PA.

(Read before the Bureau of Homœopathic Institute and Clinical Medicine of the Homœopathic Medical Society of the State of Pa., Sept. 21, 1909.)

WHEN those of us who are engaged in this special line of work are asked concerning certain remedies which have a specific action on the nervous system, the answer is usually looked upon with doubt as to the results obtained. While it is true that we are called upon to treat the most helpless and at times the most hopeless cases yet alleviation is sought for at times when cure is quite impossible and when a cure should result, of course, we are entitled to the credit of the accuracy of our investigations.

Perhaps in no other class of cases is the practitioner called upon for a finer discrimination in the selection of a remedy than those so-called nervous cases or cases presenting nervous phenomena, especially for two reasons: (1) The variety and the number of symptoms presented; (2) The veracity of the symptoms present; not but that those symptoms are real and honest to the patient, but that they are so apt to be misleading in the selection of the remedy that they add to the confusion which you find yourself in after examining a case of this nature. If we are to take into account every mental picture of the patient's symptomatology we will find that not only some of our patients are confused in their ideas, but we will also share that same confusion if we are not in a position to sort out or separate and arrange in logical order the symptoms presented.

The first clinical suggestion then that can be offered is the one that a careful record should be made of the case at hand and a thorough physical examination be completed before the validity of any symptoms should be questioned. In the consideration of the results to be obtained from remedies in neurology one must understand the diagnostic and prognostic situation thoroughly. It is taken for granted that when the disease has spread so far as to destroy the neural elements, or by reason of inflammatory process these neural elements, representing nutrition to nerve cells, have been replaced by connective tissue. Scar tissue results in nerves as it does in other tissues, yet sometimes we lose sight of the fact that the physiological law of the loss of function in highly organized tissues comes into play, i. e., the finer the construction the more delicate the part, the quicker it is subjected to disintegration, and correspondingly a slower return to normal when the operating cause has been removed.

The consideration of these details should not confuse us, but it will enable us to take a more charitable view of therapeutics of neurological cases. I take a very interesting clipping from an old edition of Laurie regarding action of remedies.

He divides patients into four classes as to susceptibility of drugs and says of them:

FIRST CLASS.

Those who are comparatively insensible to medical influence, particularly in high potencies upon which the medicines show neither marked action or reaction. Such individuals are generally of what is denominated the leucophlegmatic temperament. They require generally low potencies and frequent repetition. Also in disease we find some persons who appear to enjoy a peculiar exemption from infections and contagious influences. To this rule, however, of giving low potencies in such cases, there are exceptions. I have found in practice after a careful study of the individual and selection of the remedy suitable to the temperament marked action or reaction produced by a very high potency, where a low potency of the same remedy failed to elicit any appearance of effect and vice versa.

SECOND CLASS.

A marked susceptibility to medical action without a corresponding reaction; such patients are generally of a highly nervous temperament, exceedingly difficult to treat, and require particular study. Here the higher potencies are generally called for.

THIRD CLASS.

Those in whom no marked or scarcely perceptible medicinal action declares itself, but a well-marked reaction. In such cases we must be guided by other indications in the selection of the potency, watch the effect carefully and avoid a too frequent repetition.

FOURTH CLASS.

Those in whom medicines show a well-marked action and reaction; here also we must be guided by other circumstances in the selection of the remedy so as to obtain the greatest possible benefit without materially increasing the sufferings of the patient. We generally find a particular susceptibility to medicinal influence at any potency in patients dwelling in the country, of robust frame, simple habits and regular lives, who are not subject to any dyscrasia. In towns, particularly in large, densely-populated cities, this susceptibility is greatly developed, but the reaction is less evident, however, much depending upon the individual employment, habits and pursuits, it is difficult to give any fixed rule.

The few clinical remedies claiming our attention at this time are:

- (1) *Arsenicum iodatum.*
- (2) *Cuprum arsenicosum.*
- (3) *Strychnia phosphatum.*
- (4) *Zincum phosphatum.*

These remedies viewed in the light of the present day therapeutics are recognized as deep acting ones, and consequently tissue-changing ones. In other words, tonics, alteratives and eliminators; and after all the principal actions in neurological therapeutics are to be worked on these lines, and these lines are distinctly homœopathic in the clinical observations, as they are observed in the cases from which this paper is written.

The first and perhaps the most important clinical observa-

tion is in the medicine used, by that, it is to be understood that a fresh preparation of any medicine must always be used. A fresh trituration answers this purpose, but when we say fresh we would have you to understand that the remedy should be freshly triturated from the fresh crude material and dispensed fresh. Tablets, in the course of preparation, are moistened with a low percentage of alcohol, and this is allowed to evaporate before the tablet can be put under seal. In this way we believe that disintegration of the tablet can and does take place.

Clinically the answer to the problem of dispensing these medicines is gelatine capsule administration, or soft capsules. The dose is accurate and the preparation keeps well, yet you will see that there is some deterioration in the capsules that I filled two weeks previously.

We offer, then, as the best method of administration the fresh trituration in powder form or in sealed capsules.

I offer you, as an exhibit, my own preparations of these drugs, copper arsenite being the only one I use in the tablet form. It must be remembered that these remedies are what are known as compound remedies and deterioration takes place quickly, especially the compounds containing iodine.

There are some people that cannot take capsules and for these the medicines are arranged in powder form.

Now this may seem like adding to the detail of the office, but from the clinical observations the additional amount of work is rewarded by the results obtained.

As to the dosage here also our clinical observations leads us to prescribe the medicines in doses of from 2 to 5 grains of the second decimal triturations. In the case of the copper arsenite usually one grain doses suffice. The repetition of the dose usually is one in three hours, of course, depending on the severity of the case and other allied conditions. This is purely clinical and must be determined by the conditions and the circumstances surrounding the individual case.

As to results obtained they are invariably good and this statement is backed up by observations in the hospital of the Hahnemann Medical College of Philadelphia. Here not a few but numerous illustrations of the actions of the remedies are under the observation of the several men of the department, and I am quite sure that their experience will bear me out in the facts offered to you; however, the field is large, and the

workers many, and we will look forward to some other opinions which I hope will be expressed at this meeting.

As descriptive of the cases requiring arsenicum as a remedy I quote you the following from Farrington:

"Arsenic Man.—He is the most miserable man in the *materia medica*. In a state of health he is tall, spare and austere. His features are wrinkled, dried and leathery, while his hair and eyes are dark, and his hair is straight and harsh, everything about him is harsh. When he walks by you in the street, he walks fast, runs against you and wants a great deal of elbow room. He is impolite and money-making, covetous and malicious. He would rob his own brother for the sake of gain. He has no affection for the opposite sex, and if he marries, he does so to obtain wealth. He is more attentive to his ledger than his wife. He is a very anxious man—he is so anxious to make money that he has no time to be a fashionable man, but studies his ledger instead of attending parties, balls, theatres or the billiard room. He is not a daring man, and therefore does not take great risks in his business operations, but rather, seeks wealth through miserly habits, and low under-handed cunning and meanness. He is totally wanting in moral courage and constantly fears death. He cherishes none of the finer feelings of human nature. Unlike the aconite and phosphorus persons, he never thinks of fine clothes, and never goes into ecstasies over a new hat or a new acquaintance. He has no love for anything except himself. He is himself repulsive, and his diseases are of the repulsive kind, such as ulcers, cancers, etc. He loves a hot stove and warmth generally, and his diseases are of a burning and acrid character."

In the study of phosphorus we have to remember first of all as most important and as a quality that permeates every part of the phosphorus, proving its actions on the nervous system. Its symptoms in no instance prove to increase of power or vitality, or to any genuine stimulation of function, but rather to that condition which we found under arsenic, irritable weakness. The patient is exceedingly susceptible to external impressions. He can bear neither light, sounds nor odors. He is very sensitive to the touch. Electric changes, such as occur in sudden changes of the weather, but particularly in thunder storms, make him anxious and fearful, and aggravate all existing symptoms. His mind, too, is excitable and impressionable.

He is easily angered and becomes vehement. This is not simple peevishness. He actually gets beside himself with anger, and just like the nux patient, he suffers physically in consequence.

At other times he is anxious and restless, especially in the dark or about twilight. He has all sorts of fanciful or imaginary notions. He sees faces grinning at him from every corner of the room. His thoughts may be increased so that they fairly rush through his mind, but this effect is only transient, and is followed either by aggravation of all his symptoms on mental exertion. He cannot stand mental tax. Here again it impinges on nux vomica.

As further evidence of the irritable weakness of phosphorus, we have the delirium of that remedy. Now this delirium may be associated with typhoid fever, with jaundice, or with sexual crethism. It may be quite violent. It is characterized by a condition of ecstasy. The patient has a notion that his body is all in fragments, and he wonders how he is going to get the pieces together. He imagines that he is a great person surrounded by grand accoutrements, the mania for grandeur it is sometimes termed. At other times the mania takes the form of sexual excitement. He uncovers his person, without any shame, and seeks to gratify his sexual appetite, no matter who may be the victim. These delirium attacks pass into a state of coma, or into a stupid condition of mind or state of apathy, during which he answers questions not at all or very reluctantly. Phosphorus is here very similar to hyoscyamus, and often follows that remedy in erotic mania. It also bears points of resemblance to stramonium, baptisia, rhus tox, and muriatic acid.

The same quality of drug is shown in symptoms throughout the body. Headache, for instance, is attended with increased sensitiveness to odors. The sense of smell is very acute, so that the patient faints away from the smell of flowers. These may be pulsating, throbbing headache, worse from music. The hearing for the human voice is impaired, associated with this is roaring in the ears, as from rush of blood. Sounds reverbrate unpleasantly in the ears. There is also sexual excitement with frequent erections, lascivious thoughts perfectly beyond the control of the patient, and frequent seminal emissions during sleep.

Sometimes there are only manifestations of uneasiness or

timidity, it may be the gesture of a young man who is being talked to and who turns his hat between his hands, who scratches his ear or his head, or pulls convulsively at his mustache. We all have these habits when we are with other people, even though we could not distinctly point out the psychic emotion of the uneasiness.

The idea of occasionally making use of the teeth to bite a nail is natural, we also try to tear off a bit of skin which is hanging from our lips. In the mentally weak who cannot resist their impulses all the movements become automatic. This becomes a mania. They are designated under the name of onychophagia and cheilophagia, these bad habits are often incurable ones. In the sick people these disorders of motility are much more marked, they denote phobias and strange convictions of helplessness.

In conversation she listens distractedly; one finds her continually preoccupied with herself. Her anxiety is shown by a number of unconscious movements. Sometimes she continually thrusts her first finger between the leaves of a pocket-book which she carries in her hand, all the while knotting her handkerchief around the latter. She puts one of her feet in a peculiar attitude, forcing it around backward so as almost to bring the heel forward. She throws her head back with a jerking movement as if to put her hat in place, and all the time she never forgets her respiration and forces her to draw her breath.

The actions of the two phosphorus combinations must be considered somewhat together.

Clinically, we look upon phosphorus as being in itself a strong nerve remedy, but we do not begin to know its possibilities until we look at the possibilities when combined with metals, such as zinc and the alkaloidal principle strychnia. In zincum phos. we have a peculiar remedy for there is an exaggeration of the phosphorous condition and so closely has this been noticed that Farrington long ago studied this remedy in connection with phosphorus; and if, in the light of the present day advancement in medicine we could study the older masters how much better would we appreciate them, and while they may not have expressed the current of thought in their writing, yet we cannot but conclude that their observations will court investigation along modern lines of medical thought.

A remedy which has proved very successful in the hands

of many of the best nervous specialists is zinc. A new feature of this remedy, in our experience, has been the powerful effect it has in inducing sleep. When combined with phosphorus it forms a very good medicine in the treatment of insomnia, and chronic alcoholism, especially is this remedy of service in the anemic.

Zinc offers us many valuable suggestions in the treatment of chorea. The general experience with zinc, even in the practice of the regular school, has been uniformly good. The late Dr. Hughes says that in chorea it has been most frequently employed as a remedy and has generally been successful. He reports forty-seven (47) cures out of sixty-three (63) cases.

In epilepsy the phosphate of zinc has been of great service. Undoubtedly it is a sedative in its action. It lessens spasmodic movements, especially those of a paroxysmal character, and our experience has been that at times it induces sleep where vegetable sedatives have failed.

In neuralgias dependent upon exhaustive conditions of the nervous system, in our clinical experience, zinc offers a most suitable remedy. The relief is prompt and long-lasting, especially if that neuralgia or nervous pain be of a morning aggravation, and dependent upon some exhaustive condition of the nervous system generally.

Zinc, then, is to be looked upon as the remedy where anemia is causative factor and where brain exhaustion is the leading symptom. Among these we may mention paralysis, convulsions, chorea and spinal irritation.

Bartlett says of zincum in Goodno's Practice:

Zincum is employed by both schools of medicine. Its homoeopathicity is unquestionable. A few years ago a series of cases of nervous diseases attacking the workmen in the mines of Upper Silesia was reported by Schlochow. The disease only attacked those who worked in the mines for a number of years. They were marked by inco-ordination of gait and anaesthesia of the lower extremities. Zincum is especially indicated when numbness and formication of the lower extremities are pronounced, also when there are burning pains along the spine, pain at the last dorsal vertebra and other symptoms of spinal irritation. Sexual power is generally lost.

He says further a combination of phosphorus with zinc ought to make a valuable spinal remedy.

Phosphorus is still another remedy used by both schools. He says of it: "It is especially indicated in erethistic cases. Burning along the spine and in the affected extremities as a prominent symptom. Extreme sexual excitement is present."

When atrophy of the optic nerve is present, it is associated with flashes of light. This clinical suggestion has been verified repeatedly in our clinical work in cases of interstitial atrophy of the optic nerve.

A clinical observation which has been verified repeatedly is the one that in cases of chorea affecting the feet, especially that which is brought on by fright, yield readily to the use of zincum.

In cases of nervous prostration Bartlett recommends zinc-phosphide, in the first potency four times daily, but our clinical experience has been confined to the remedy in the second potency, and repeated every three hours.

As another complementary remedy, the strychnia salts must be taken into consideration. The after-depressing effect of these salts is not as pronounced as that of zinc, and consequently in the administration of them, we must not expect so deep an action and reaction.

Strychnia Phosphate—

Melancholia.

Vertigo, dizziness, visual disturbances especially, incident to excesses in tobacco, whiskey or the loss of vital fluids, paralyses.

Postdiphtheritic

Masturbation.

Multiple neuritis of diabetic origin.

Spinal neuroses.

Hysterical spine.

Copper Arsenite.—This remedy must be considered first and foremost where one is dealing with symptoms dependent upon deficient kidney action. This one fact leads to an immense possibility for the drug, and gives its symptomatology a broad field. Then, too, its action and result clinically are invariably good. Chief among these symptoms are those classed as uremic, among which are headache, vertigo, and unconscious conditions resulting from brain oedema, paralysis of cranial nerves, toxic spasms, either local or general and hemiplegias.

ENDOMETRITIS.

BY N. F. LANE, M. D., PHILA., PA.

(Read before the State Society, at Scranton, September 22, 1909.)

FEELING somewhat more than usual the relaxing effect of the summer months, and casting about for an easy subject with which to entertain this society, I concluded that endometritis would be just the thing. But as I began to work up the subject I soon found that I had made a grievous mistake and that the subject selected was anything but a sinecure.

Upon being brought face to face with this situation I have omitted all histological and theoretical considerations and will treat very briefly of the gross and practical side of the question.

Endometritis seems to bear the same relation to the department of gynecology as malaria does to general medicine, viz.: when nothing can be found to account for the symptoms present, it is charged up to endometritis. I would not give the impression that endometritis does not play an important role in diseases of women, but it is nowhere as common as is generally supposed to be, and the symptoms thought to indicate an endometritis are often the result of latent disease, polypi or malignancy of the endometrium. In fact an uncomplicated endometritis of a chronic nature is a rather rare disease.

For all practical purposes we may divide our cases into the acute and chronic, sub-dividing the acute into the gonorrheal and septic and the chronic into the glandular and interstitial; this latter sub-division being superfluous for every day work. The chronic variety can usually be traced to an acute attack if the patient is carefully questioned and the symptoms and history be correctly interpreted. The chronic case, when seen, is often so remote from the acute attack that the connection is easily overlooked.

Beginning with the acute gonorrheal cases we find the symptoms to be quite variable, but the history of an attack of gonorrhea, as indicated by burning urination, foul-smelling leucorrhea, discharge of pus from the urethra, an excessive

cervical discharge and a somewhat tender and perhaps enlarged boggy uterus, will point to an endometritis.

Unfortunately if the gonococcus gets as far as the endometrium it seldom stops until the tubes are invaded and then we have, in addition to the above symptoms, backache, pain and heaviness in the lateral regions, with more or less rise of temperature according to the severity of the infection.

While there is no time limit to the invasion of the lateral regions and while there is always danger to the tubes as long as the infecting agent is present in the genital tract, even in a seemingly latent form; still it has been my experience that if the organism does not invade the tubes during the first three or four weeks of an attack of gonorrhea, they are likely to escape the infection if the uterus is not interfered with, locally, in an injudicious manner. In this observation I may be mistaken.

Admitting the above to be a fair description of an ordinary case of gonorrheal endometritis, it seems to me to be folly to attack the endometrium locally with a curette or other like measures, for the simple reason that it is almost an impossibility to determine that the endometrium is infected and the tubes not, and if the tubes are infected it is useless to curette the uterus as the uterine inflammation will usually take care of itself in a reasonable length of time and the traumatism of the curettage may still further spread the infection to the peritoneum.

For treatment I suggest rest in bed, hot antiseptic douches, suitable medication; but unless the abdomen is to be opened to treat tubal complications, the endometrium should be let severely alone. In the sub-acute or chronic stage the endocervicitis, which usually lingers for an indefinite period, may be treated to an application of a four per cent. solution of nitrate of silver or a twenty-five per cent. solution of argyrol. These can be applied without traumatism, by using a uterine syringe, taking care not to invade the uterine cavity.

A septic endometritis is usually caused by the introduction of dirty instruments into the uterus or from an infected placental site following labor at term or a miscarriage or abortion. The septic infections are more severe than the gonorrheal, the patient is decidedly ill, feels badly and looks badly and has a higher temperature. I am speaking of the average case. If we compare the two infections during an invasion of the

tubes and peritoneum, we find the dissimilarity is still more marked. Often a woman will come to the office with pus tubes of gonorrheal origin, feeling badly, of course, but does not think herself sick enough to be in bed. This is seldom the case when the infection is of what we term septic origin.

The symptoms of the septic infections are usually chill, fever, rapid pulse and discharge from the uterus of muco pus, or pus, or blood, or possibly all three. There may be, in some cases, little or no abnormal discharge. Sometimes the discharges are offensive and sometimes not, the odor should not be depended upon to make a diagnosis. Locally there may be tenderness of the uterus to pressure, the cervix may feel soft and the os may be more or less patulous. If there are lateral complications the symptom picture will be much altered. The treatment of these cases will often tax our skill to the utmost and physicians are by no means unanimous in their ideas of the proper method. Probably nearly all of us will agree that when the endometritis is caused by an abortion or an early miscarriage, the best procedure is to thoroughly curette and disinfect the uterus and thus get rid of the infected tissue and the infecting organism. In the latter months of pregnancy, and after full term labor, most authorities warn against the use of the curette for fear of breaking down the barrier that nature throws out to protect the general system from the infection.

In treating these cases following labor it has been my practice to first wash the cavity with some antiseptic solution once or twice daily being careful not to bruise the tissues, and if this is not followed by prompt results, to explore the cavity with the finger to remove any foreign material that may be there, or to thoroughly curette with a large instrument the entire uterus following with an antiseptic douche or swab the cavity with tincture of iodine. Strange as it may seem I have seen nothing but good results following a curettage, properly performed, but in the face of the warning of so many obstetricians I would not advocate this method. I am only giving my experience for what it is worth. While it takes the combined experience of many to learn the best, still one is inclined to be prejudiced in favor of a method which has served him well. In the treatment of these infections we are between "the devil and the deep sea"; afraid to do it and afraid not to do it. Does not an exploration of the uterine cavity with

the finger or a dull curette cause traumatism, breaking down the granulation wall, without the good resulting from a thorough cleaning of the cavity?

Without doubt *most* of these cases *do not need a curettage*, but when we make up our minds that we must explore the cavity for retained secundines or other material, it seems best to me to thoroughly do the work as with half way measures we may make matters worse and not accomplish that which we set out to do.

I have thus treated the subject to bring out the honest opinion of the members of this society in regard to treatment and hope all will speak with frankness when discussing this point.

The chronic endometritis following septic infections is, practically, very much like the gonorrheal in symptomatology and treatment. These patients will have backache, bearing down in the pelvis, many and vague pains in the uterine region and often these pains are referred to the lateral regions. They are nervous and generally miserable.

The treatment is a curettage.

Much may be done to ameliorate the suffering of the chronic cases by local treatment through the vagina, such as ichthyol and glycerine tampons, local applications to the cervical canal in case of an endocervicitis, hot douches, etc. As a matter of fact the cases of endocervicitis far outnumber those of true endometritis and this likely accounts for the fact that these local measures in the vagina so often help cases that have been pronounced endometritis. These chronic inflammations or congestions of the endometrium and cervical canal yield nicely to the indicated remedy when the general health is below par; bringing up the tone of the system and thus aiding nature to throw off the infecting element.

Discharge from the uterus does not, by any means, always indicate an endometritis as the result of these infections; but is often the result of a general systemic disturbance, perhaps circulatory, and will yield to the proper remedy. It goes without saying that no local treatment will avail in such instance; a curettage would, at best, give but temporary relief.

It is impossible to say which of our remedies will help, sometimes it is one, and sometimes another, according to the individual being treated. Too much attention should not be paid to the endometritis per se; regulating the function of

the stomach and bowels, for instance, will often do more for the patient than prescribing for the disease.

CONSERVATISM IN OBSTETRICS.

BY EDWIN VAN DEUSEN, M. D., PHILADELPHIA, PA.

(Read before the Homœopathic Medical Society of the State of Pennsylvania.)

DR. W. D. WARD, in a paper read before the Rochester Pathological Society, April 23, 1908, says, "Uterine and ovarian surgery, appendical surgery, gall bladder surgery, gastric surgery have all been taking such rapid strides that they seem to have attracted the attention of the whole profession."

Dr. L. M. Allen, in a plea for the more frequent performance of Cesarean Section, read, September 15, 1908, at Ocean City, Md., quotes as follows:

"Davis says when we contrast the difficulty and shock attended by pelvic delivery with the apparent freedom from shock seen after abdominal section in patients in good condition, the comparison seems greatly in favor of section.

"Reynolds says most obstetricians now agree that really difficult high forceps or versions are more severe operations than the primary Cesarean section."

Warren says, "Under any and all of the recognized methods of delivery, the mother's life is not immediately hazarded; on the contrary, all methods but one are distinctly hazardous to the child; to save the child Cesarean section must have first place. In elective section its life is practically assured; in compulsory section its life depends not upon the section but upon the character of the previous attempts at delivery. All experienced obstetricians should agree that a difficult high forceps extraction or late podalic version is certainly more dangerous to the mother than a laparotomy, and much more so to the child even when labor is conducted under the most approved technic by the expert."

Pool says, "It seems to the writer that it is a mistake to attempt version and breech delivery in any case where it is deemed unadvisable to draw the head through the pelvic cavity with the forceps. In such cases, Cesarean has an advantage over the other operations in that it certainly saves the child and inflicts not more and usually less injury upon the mother."

Brown says, "It is my belief that a large number of women

and children die or are severely mutilated each year on account of the fact that difficult or impossible procedures are adopted in place of Cesarean section. This operation has too long been held up as a boggy by the medical profession. If practiced with forethought and careful attention to a few rules it is an extremely successful and easy operation."

Bonnaire regards his results as so favorable that Cesarean section should be regarded as no more dangerous for the mother than forceps delivery, while the outcome for the child is infinitely better.

Reddy feels strongly that Cesarean section has far too long been looked at by the average physician almost in the light of a forlorn hope, instead of being a comparatively easy operation capable of being performed almost anywhere successfully by any one following antiseptic rules. He considers the operation much simpler than many a case of appendectomy or accouchement force.

Kerr thinks, considering the results, that we are not only justified but compelled judiciously to expand the field of this operation.

Fry says, "The indications for delivery by Cesarean section should cover cases of minor degree of pelvic contraction where a few hours of labor pains demonstrated the inability of nature to mold and engage the head. This indication should be extended to embrace those border line cases in which the conjugata vera was even as much or more than 8.5 cm. for the justominor and 9 cm. for the simple contracted pelvis."

Dr. Charles B. Reed, in a paper on Pubiotomy, read in Chicago last March, recapitulates thus: "I would say that the operation recommends itself to the general practitioner because:

1. It is a desirable method of securing the delivery of 75 per cent. of his contracted pelvis cases with best results for mother and child;
2. The cases of difficult version and extraction and difficult forceps will be reduced to a minimum, or if done will be done under the most favorable conditions;
3. The technic of the operation is simple and easily acquired;
4. The dangers are few and mostly to be avoided by anyone with moderate surgical training and conscience;

5. The operation can be done in a very few minutes;
6. The labor is easier and the chances for a living child are greatly improved;
7. It can be done in the home of the patient;
8. Only a very small armamentarium is required.
9. In many cases the pelvis is permanently enlarged, so that a subsequent labor may be normal.

In conclusion it may be stated as a prediction that while the forceps operation has required 150 years in which to become so common that its abuse is frequently spoken of, it is reasonable, in my opinion, to say that the same accusation will be available against pubiotomy in less than 50 years for the same reason, namely, the great frequency of its performance.

It is the sincere belief of the writer that the operation, for the reasons given, has a great future and that its future rests not with the specialist, but in the hands of the general practitioner."

Dr. Adam H. Wright, Professor of Obstetrics, University of Toronto, said to the Toronto Academy of Medicine in February last, "My rule is to commence to induce labor within three days after the patient has reached term, as a matter of routine in all cases."

Probably enough has been quoted to indicate that the leaders of obstetric thought and practice in this country evince in their writings, not only a perfect knowledge of the magnificent advances in the obstetric art, but a disposition to belittle or discredit nature's forces and to more and more take upon themselves the burden of child bearing and make of labor a surgical procedure rather than a physiologic process. It is entirely within the bounds of probability that within a decade some capable but over-zealous obstetrician should seriously advocate the delivery of nearly all babies by Cesarean section—allowing exceptions enough to prove the rule and to act as a sop to the conservatives. There can be no doubt that elective Cesarean section can be done with an infant mortality absolutely nil and a maternal mortality extremely small and with a recovery as rapid and apparently as complete as after a normal labor. Nevertheless, the large majority of us instinctively shrink from such a practice and only the very boldest have the temerity to assume voluntarily the whole responsibility and to say to nature's forces, "I have no need of thee."

On the other hand are the cases where nature's forces are

so palpably inadequate to the task imposed upon them that delivery without intervention is an impossibility. Here the responsibility is thrust upon the obstetrician and cannot be evaded and of the obstetric operations the question becomes only which and when.

Between the typically normal labor and the physiologically impossible labor are an infinite number of grades shading into each other. Where is the point at which intervention ceases to be interference and becomes a necessity for the well being of mother and child?

This question confronts every obstetrician at every birth. In the large majority of cases the birth takes place before an answer is demanded. No hard and fast rules can be laid down, for every case differs from every other and must be decided upon its own merits; but the relation of the passage and the passenger; the relation of the maternal strength and endurance to the resistance to be overcome; the nature and adaptability of the presenting part; the lapsed time and the present condition of the mother and child—these determining factors are always present. The difficulty of determining the size of the passenger, the maternal strength and endurance, the adaptability of the presenting part and the resistance, together with the impatient hasty spirit of the age, which drives every one to the rapid accomplishment of an object, are the reasons for much unwise interference in obstetrics.

Normal labor is a physiologic process and should be so considered, but this makes its safeguarding by surgical cleanliness no less important. Indeed, since sepsis is the ultimate cause of most of the serious results of labor, surgical cleanliness becomes an unavoidable duty and should be the inflexible rule.

A careful preliminary examination of the pelvis and abdomen made in the eighth month of pregnancy and in multipara, a history of previous labors will serve as the best basis for predicting the character of the expected labor. Approximately normal pelvic measurements will, of course, be an indication for non-interference. Even a slightly flattened or generally contracted pelvis need occasion no apprehension.

Dr. Richard C. Norris, in a paper read May 26, 1908, writes, "The statistics of spontaneous labor occurring in the degrees of obstruction now under discussion gathered from various sources show an average of 70 per cent. of unassisted labors."

Dr. Barton Cooke Hirst, in a paper read at the same time, says, "If a primipara is given 24 hours of labor and a multipara 12, a safe limit within which rupture of the uterus need not be feared, about two-thirds of the women would deliver themselves spontaneously, who, if treated according to the advice recently given the profession would be subjected to an unnecessary major operation."

Dr. Henry D. Fry, in discussing these papers said, "Fully two-thirds of these cases were delivered naturally. * * * Nature took care of these women and where they had contracted pelvis they had small babies."

Dr. E. P. Davis, in the same discussion, said, "As regards the statement that 70 per cent. of labors in moderately contracted pelvis would terminate spontaneously, the speaker's experience in a series of 1200 cases of contracted pelvis of all sorts was that fully 80 per cent. would terminate in spontaneous labor."

Dr. E. Gustav Zinke, in a paper read at the meeting of the American Association of Obstetricians and Gynecologists, September 22, 1908, writes, "According to Baisch, 'the period of compromise operations records, in narrow pelvis about 60 per cent. spontaneous births; other obstetricians like Braun, only 35 per cent.' If we are made to understand that in the past from 50 to 60 per cent. of all women with narrow pelvis were delivered by operative interference and that within recent years Saxinger, Pinard, Zweifel and Doederlein have secured 80 per cent. of spontaneous births with expectant treatment of narrow pelvis, we can realize the extent and importance of the progress made."

Dr. Simon Marx read a paper, December 12, 1908, before the New York Obstetric Society, in which he states, "All observers are agreed that an overwhelming majority of these so-called pelvic contractions give no trouble; about 80 per cent. of the labors terminate normally."

When the contraction of the pelvis is excessive an entirely different problem is presented.

Dr. Norris, in a paper mentioned above, also writes, "For the absolute indication is it not time, in view of the modern results of Cesarean section to formulate a general rule, to which there will be few exceptions, that when the conjugata vera is less than $7\frac{1}{2}$ cm. in simple flat and 8 cm. in generally contracted pelvis, Cesarean section at or before the onset of

labor should be the elective operation." This is not interference. This is intervention in a physiologically impossible labor.

When at the preliminary examination the occiput is found to be posterior and the small parts of the child anterior, the knee chest position night and morning will probably transform the presentation to an occiput anterior. A breech presentation demands no modification. It occurs, usually in the writer's experience, in the case either of a small child or of twins. In the latter case any attempt at modification would probably be unsuccessful and even hazardous.

The relation between the maternal strength and endurance and the resistance to be overcome is impossible of exact measurement, but with experience comes a kind of intuition which is usually dependable as a guide. "Generally speaking," to again quote Dr. Marx, "It can be stated as an unalterable truism that no labor should be interfered with except,

First—There be present symptoms of beginning maternal exhaustion as shown by rise in temperature and pulse rate, and the presence of a contraction ring, all indicating the futility of the labor, or

Second—Fetal exhaustion as evidenced by marked excursions of the fetal heart's action, the persistence and continuance of an umbilical souffle, and the discharge of meconium, except in a breech presentation."

When a case in whom the preliminary examination has been satisfactory has been in labor for some time with no progress, either the maternal strength is insufficient or the resistance too great, or both. A careful investigation will often decide. When the suffering is very great, a hypodermic injection of 1-4 grain of morphine, and 1-100 hyoscine is often of great service in coordinating the muscular movements by relieving the suffering. Late in the labor chloroform is very efficient. This coordination of the muscular movements will usually bring about a correction of a slight malposition and restore the progress of labor which will proceed to spontaneous termination or at most require only gentle assistance. Any forceps delivery, which requires violent exertion such as bracing the feet, or the effort of two people, is an evidence of poor judgment in the selection of the method of overcoming the difficulty. Such a delivery is no better than Pubiotomy or Craniotomy. If subpubic sepsis has been guarded against pos-

sibly Cesarean section would be much safer for both mother and child.

This question of sepsis and asepsis is probably the most generally important one in obstetrical practice. Wonderful advances, especially in hospital practice, have been made.

In one hospital in which careful records have been kept, and this is probably a fair index, the nonseptic cases

in 1877 were 31 per cent.

in 1887 were 70 per cent.

in 1897 were 75 per cent.

in 1907 were 92 per cent.

Of the septic cases in 1907, 18 per cent. were slight; 2 per cent. were severe, and 6 per cent. were doubtful. The one severe case is charged to an error in technic discovered too late to avoid its effects. Of the doubtful cases a considerable number were believed to be gonorrhoeic.

In this hospital from 1862 to 1872 the death rate from sepsis was 1 in 50, a much better showing than many hospitals at that time. From 1897 to 1907, in a total of nearly 3,000 cases there was only one death from sepsis and this was an eclamptic case in which the infection had probably no more to do with the death than the kidney condition. This splendid improvement is the result of antiseptics. Antisepsis, broadly speaking, means cleanliness. It means a bath, a soap and water scrub with a brush, followed by a rinse, preferably a shower bath. It means the use about the patient of coverings that are sterile. It means invading the vagina as little as possible, and then only with a sterile instrument, or a carefully prepared finger covered by a carefully sterilized glove. In the hospital supplying the above statistics no douches are given before, during or after labor except on special order. The nurses are expected to rinse off the genitals with sterile water after every urination and to wash them at least twice a day with bichloride solution and also after defecation.

Dr. Douglas H. Stewart, an ardent advocate of the chlorine technic, writes, "It has been my experience that if the accoucheur leaves the vagina alone but has the patient wash off the vulva and perineum daily for a week before the day of expectation, using a heaping teaspoonful of washing soda and also of calx chlorinata to a quart of water, avoiding any mechanical means of drying * * * then he will often find the vulva sterile or at least free from pathogenic germs when

the patient is put on the table for delivery." Again he writes, "Omit the common process of indiscriminate douching (vaginal) * * * An ordinary vagina can best care for itself when interference is at its minimum."

A labor conducted with the fewest possible number of vaginal examinations and those, as well as all other, procedures requiring contact with the patient, with the most scrupulous antiseptic care, is of great advantage not only in normal labor, but even more so when it is found that active intervention is required. It enables us to await with safety the result of a test of labor in border line cases, and to then advise Cesarean section, without feeling that by waiting the patient's chances have been sacrificed.

Dr. Carlton C. Frederick said, September 22, 1908, "I believe that the larger mortality in Cesarean section cases, after delayed operation, is more due to subpelvic infection before section than to the exhaustion before section. This fact is borne out by the experience of several operators who have done sections frequently after patients have been in labor for over 24 hours under conditions such that the labor has been antiseptically conducted."

Dr. B. C. Hirst has said that there need be no dread of a Cesarean section after hours of labor pains if the operative and aseptic technic is good.

The general practitioner is preeminently the accoucheur and he must be looked to for the improvement in the morbidity as well as the mortality of the mothers and the mortality as well as the morbidity of the children. He will accomplish this by careful antiseptic technic, especially in entering the vagina, (which will include the use of rubber gloves); by a careful preliminary examination one month or more before delivery; by abandoning violent high forceps extraction; by patiently waiting a reasonable time, using such means to pacify the patient and friends as his mental acumen may suggest; by refraining from such interference as the rupture of the amniotic sac before its dilating function has been performed, the use of ergot before the completion of labor, the prolonged use of chloroform or ether, the forceful or hasty delivery of the afterbirth.

This question of a conservative mental attitude of obstetricians and gynecologists is worth serious attention, for the greatest menace to the public's confidence in gynecologists and

operating obstetricians springs from no lack of ability, but on the contrary from the offhand lightness of manner with which the gravest operations are approached—a direct effect of the recent wonderful and brilliant achievements.

THE CHOICE OF AN ANAESTHETIC FOR CHILDREN.

BY

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CHLOROFORM has, up to the last few years, been the anaesthetic chosen by most anaesthetists and surgeons for children on the ground that ether frequently produced pneumonia after its administration. Even to-day most text books on surgery briefly dismiss this important topic with the unqualified statement that chloroform should always be used when the patient is a child.

So many observers have reported that chloroform produces fatty degeneration of the heart, liver and kidneys if administered for over an hour or at frequent intervals that it is high time that the multitude cease to blindly follow their grandfathers' unfounded advice upon chloroform for children and pay some attention to the selection of the anaesthetic for each individual child.

When we have four good anaesthetics like nitrous oxide, ethel chloride, ether and chloroform why should we confine ourselves to the use of one, and the most dangerous one, simply because the patient happens to be a child? We do not restrict ourselves this way with adults and surely the delicate organism of the child is entitled to at least the same consideration.

A review of what we now know of the action of these drugs upon the system may help us to a saner course in the production of narcosis in children.

Nitrous oxide produces at first a slight rapidity of respiration with slightly deeper breathing; if continued the breathing becomes very rapid and deep, followed by the familiar jactatory movements of the eyelids. This same muscular jerking soon becomes general, cyanosis is of course present due to the exclusion of air; if air is not at once administered this would go on to convulsions and death. Owing to this intense muscu-

lar jerking and to the rapidity of its action nitrous oxide can be ruled out as an anaesthetic for children because their chest muscles are not sufficiently developed to stand the jactitations and also because of the fright produced by the sight of the necessary apparatus. This is to be regretted for nitrous oxide produces no poisonous effects.

Ethel chloride producing no jactitations, no cyanosis and acting equally as rapid is therefore the choice for children either for short operations or as a preliminary to ether.

Ether, as you know, is a cardiac stimulant, congests the brain and mucus membranes, tends to raise blood pressure rather than lower it and is more apt to produce nausea and vomiting than chloroform, is slower in producing narcosis and frequently does produce bronchitis. Yet all its bad qualities are so vastly outweighed by one good one, namely relative safety, that it is rapidly superseding chloroform as an anaesthetic even in children.

A word as to the bronchitis; many times this can be avoided by warming the ether. When a patient is fully under an anaesthetic ether does not irritate the bronchial mucous membranes as much as it does in the early stages, hence the practice of using ethel chloride or chloroform as a preliminary should receive our endorsement.

Ether pneumonia is practically unknown to the expert anaesthetist. Every expert will corroborate this statement.

Another fallacy about ether is that it is contra-indicated in diseases of the kidney. It is a well established fact by this time that chloroform is more harmful to the kidneys than ether and while it is admitted that the administration of ether yields a transitory reduction in urea yet I have never known ether to produce suppression of urine while chloroform can be charged with many such results. To be sure a kidney lesion is a signal not to be ignored, warning the surgeon to be expeditious and the anaesthetist to minimize the amount of anaesthetic used.

From the foregoing it will be apparent that ether can be and should be used in all cases except patients having irritable bronchial tubes, pulmonary phthisis or pneumonia. There are a few exceptions to this statement that will be considered under chloroform.

Chloroform is a cardiac depressant, producing pallor of the mucous membrane, suppression of urine, paralysis of respiration, lessened blood pressure, shock and burns the skin.

It is frequently held in suspension by mucous bubbles, thus giving it a cumulative action and if long continued or administered frequently at short intervals often causes fatty degeneration of the heart, kidney and liver and destruction of the red blood corpuscles. In its favor are, the comparative absence of bronchial irritation, the simplicity of the apparatus for administering it, the minimum amount of nausea and vomiting and the rapidity with which it produces narcosis.

Chloroform is therefore best adapted to cases with irritable bronchial tubes, phthisis, pneumonia and in all cases where the vapor comes in direct contact with the lungs without being warmed by the upper air passages such as broncoscopy, laryngoscopy and anaesthesia through a tracheotomy tube or by intubation. Should any of these cases exhibit decided contra indications for chloroform, ether by rectum is now so perfected that it should be recommended.

Chloroform is therefore contra indicated in shock, collapse, anaemia and fat children.

As for heart disease I do not consider it contra indicated in valvular lesions provided compensation be well established.

Myocarditis and uncompensated dilatation are the things to be feared in all anaesthetics more especially chloroform.

In kidney lesions my choice would be ether as I have frequently given ether to cases suffering from nephritis and have yet to see anything but a slight transitory increase in the symptoms.

Chloroform should never be administered by anyone not thoroughly trained in anaesthesia and the strictest attention given to respirations throughout the anaesthesia.

After all our theoretical knowledge has been brought to bear upon the case we not infrequently find that the supposedly ideal ether case does better on chloroform and vice versa. Here the good judgment of the anaesthetist will prompt him to change from ether to chloroform or from chloroform to ether there being no rule or reason for not doing so.

The time and preparation for operation, the administration of the anaesthetic and many other details of anaesthesia have been purposely avoided as not being germane to the title of this paper.

SUMMARY.

Nitrous oxide has no place in anaesthesia of children. Ethel chloride being a safe and efficient substitute.

That more attention be paid to the selection of an anaesthetic for children, not confining ourselves blindly to chloroform or any one drug but choosing the drug for each individual case.

That where there are no positive contra indications for ether it should be used in children more extensively than in the past because of the greater safety.

FRACTURES OF THE SKULL AND THEIR TREATMENT.

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(Read before the Homœopathic Medical Society of the State of Pennsylvania.)

DURING last winter's service in the wards of Hahnemann Hospital it was my fortune to meet a number of interesting cranial lesions. From these I have chosen to review the fractures, fourteen in all. This is too slight a number from which to draw deductions, but I will briefly outline them to bring out some of the points I will discuss later.

I. Hospital Record No. 10,740. J. H., 26 years. Patient was struck on the head by a beer mug and sustained a lacerated scalp and a linear fracture, one inch in length, in the left parietal bone. The only symptoms were pain and momentary unconsciousness. The outer plate of the skull was removed over the fracture, but the inner table was found intact. The wound was closed, and at the patient's request, he was discharged five days later with no new developments.

II. Hospital Record No. 10,859. W. E. F. Patient was struck by a train, sustaining contusions over the body and a compound, multiple, depressed fracture of the right parietal, right temporal and occipital bones extending to the base in middle and posterior fossae. On admission to the hospital he was unconscious and in a state of collapse, while the diagnosis was self-evident. The depressed pieces of bone were removed revealing a laceration of the meninges and brain and the wound closed except for a gauze drain. The patient showed little effect from the operation, he remained delirious, was violent, had retention of urine, though the bowels moved freely from castor oil. The temperature ranged from 99° to 100°, with

a pulse 70-100, until the fourth day when it jumped to 104°, pulse 140, respiration 40. The symptoms became progressively worse and death took place on the sixth day.

III. Hospital Record No. 10,949. J. D., 15 years. Struck with heavy block on back of head and was unconscious for a few minutes; he again became unconscious after he had been taken home and began to vomit. On admission to hospital he was conscious but rather stupid, and projectile vomiting continued. Examination of scalp showed a large contusion on the right side and some hemorrhage from this ear. An exploration of the skull discovered a fissured fracture beginning in the right side of the occipital bone and running downward and forward through the right parietal and temporal bones to the base of the middle fossa. An opening was made with a gouge and mallet and the fracture followed to the temporal bone, where a fair-sized hematoma was found, the blood coming from a laceration of the lateral sinus. The bleeding was controlled by a pack and the rest of the wound sutured. Temperature next day was 99° ax, pulse 78 and strong, while the patient was somewhat drowsy and continued to vomit. The maximum temperature was on fourth day 100°, and became normal soon after removal of the pack on the seventh day. He was discharged on the eighteenth day with wound perfectly healed.

IV. Hospital Record No. 11,084. W. F., 11 years. Ran into a post striking it with his head and causing a hematoma over right eye. When brought to the hospital the patient was stupid and he had ecchymoses over and in the right eye, slight rigidity of the left arm and leg and left patellar reflex was lost. The pupils were normal. Exploration over the right Rolandic area disclosed a fissured fracture in this region. On trephining the dura bulged into the opening but pulsation was present. The membranes appeared oedematous and at one point discolored and here the dura was opened, but nothing was found except a very free flow of cerebro-spinal fluid. A drain was placed only to the opening in the bone. The patient was unconscious and restless for about ten hours, but then became perfectly rational and made an uneventful recovery. Discharged on the seventeenth day with the wound healed.

V. Hospital Record No. 11,087. T. T., 54 years. During an attack of vertigo patient fell and struck his head. Brought

to the hospital unconscious, with a contusion of the left eye and this pupil dilated and fixed. Exploration found a fracture of left frontal bone running to the base of the anterior fossa and involving the roof of orbit, with comminution of the inner plate. After enlarging the trephine opening and removing the fragments of bone a pack was applied on account of severe hemorrhage and the wound sutured. During the next 24 hours the patient was rational, the pulse weak and reached 128, but strychnia readily controlled this, and vomiting of dark brown fluid continued. The maximum temperature was 100°, pulse 90-110, on the third day, and the patient was discharged on the twenty-sixth day with a small sinus persisting.

VI. Hospital Record No. 11,089. L. W. M. Knocked down by a wagon and entered the hospital in a dazed state. The principal symptom was bleeding from the right ear. Exploration brought to view a fissured fracture of right parietal bone running through the temporal to the base. This was enlarged and a number of epidural clots removed and the lower angle of wound packed to stop bleeding. The temperature was practically normal throughout and pack was removed on second day. The patient's mental condition was not strong but gradually improved, and he was allowed to go home on seventeenth day. He reported to us for two months when he was in fair condition mentally and physically. After a disappearance for five months he came back suffering severely from psychasthenia and was referred to Dr. Fox who treated him with excellent results for two months after which he again failed to return. The operation had little or no effect upon his subsequent condition which was due to the shock of the accident and none of his symptoms pointed to an organic lesion.

VII. Hospital Record No. 11,121. J. K., 65 years. While intoxicated the patient fell and was unconscious when brought to the hospital. On account of intoxication a satisfactory examination was impossible. A contusion in the occipital region was explored and a fissured fracture extending from the occipital bone, almost directly over the superior longitudinal sinus, to the base trephined with the removal of a large hematoma. Recovery was easy and the patient was discharged at his own request on the sixteenth day with the wound healed.

VIII. Hospital Record No. 11,198. J. P., 14 years. Fell downstairs striking on head. Was sleepy when admitted to

the hospital and began to vomit, temperature 98-2°, pulse 100, respiration 26. There was some irritation of the left hand, the right pupil was dilated and there was a contusion in the right parietal region. Exploration showed a very slight fissure in the squamous portion of the temporal bone, which ran into and caused a separation of the squamous and squamo-sphenoidal sutures and thence to the base. The fracture was enlarged, a clot turned out and hemorrhage from the middle meningeal artery controlled by a pack. The patient became rational in fourteen hours, the maximum temperature, 100°, was reached on the fourth day, and he was discharged, on the seventeenth day with the wound healed.

IX. Hospital Record No. 11,218. S. K., Fell down two stories in an elevator shaft and landed on head. When brought to hospital both eyes were swollen shut, there was a large contusion over left side of forehead, the blood literally poured from his nostrils and the patient appeared moribund. Without anaesthesia the left half of the frontal bone was immediately exposed, presenting a fracture running to the base. When trephined blood and fair-sized pieces of brain came through the opening which was quickly enlarged for about an inch and a half. This enabled us to place a gauze drain under the base of the frontal lobes and hemorrhage from the nose ceased. The patient was hurriedly placed in bed and treated for shock. The next day he was in a stupor but could be aroused sufficiently to tell his name, and his mental condition continued to improve until in seven days he was rational, but drowsy and rather irritable. On the twenty-eighth day he was discharged with a clear mentality, but very little sight in his left eye, almost complete deafness of his left ear, the reflexes of the right arm and leg were lost and the muscles of these limbs slightly weaker than on the other side. He was referred to Dr. Tuller for further treatment. Much of the success in this case we attribute to free purging with castor oil, two or three pints of hypodermoclysis daily for the first week, and the untiring care of Dr. Joss, our house surgeon.

X. Hospital Record No. 11,337. T. H., 74 years. Fell down stairs and was brought into the hospital in a deep stupor, temperature 96°, ax., high tension pulse of 72, with sclerotic vessels, respiration, 24, both eyes ecchymosed, pupils dilated, hemorrhage from nose, and a laceration on right side of

head. A fracture beginning in the right parietal bone could be seen and this was enlarged and followed to the base where it extended into the roof of the orbit. The membranes over the frontal convolutions were torn and a subdural clot had formed in the lacerated brain substance. The clot was turned out, but free hemorrhage required a drain under the dura. The convalescence was rather tedious as the patient, though rational, was drowsy and exceedingly irritable and restless, symptoms referable to the location of the lesion. The drain was removed on the seventh day, but no effect was noticeable. The urine was involuntary but scanty, so hypodermoclysis was given twice a day, and he was freely purged, though with difficulty. The irritability gradually disappeared and he was discharged in good spirits on the forty-eighth day.

XI. Hospital Record No. 11,421. C. Le G. After committing a murder the patient was severely beaten up over the whole body, suffering a number of contusions and lacerations of the scalp. A depressed fracture in the right frontal bone could be distinctly felt, but this, upon exposure, proved to be an ancient one. The other lacerations were quickly enlarged and a slight fissure found in the left parietal bone with a small hemorrhage beneath. Recovery was uneventful and he was turned over to the police on the fourteenth day.

XII. Hospital Record No. 11,763. H. F., 38 years. Thrown from driver's seat on a hansom. No neurological findings, but a contusion in region of the right parietal bone. Exploration brought to view a fissure running over to junction of the sagittal and lambdoidal sutures with a separation of the left lambdoidal and occipito-mastoid. The fissure was trephined and a small epidural clot removed. Maximum temperature was 100° ax. next morning, and it was normal on third day. No change in his mentality was apparent, though he several times removed his dressings, however this seemed to come from natural perverseness as he was perfectly rational but refused to believe he was seriously injured and complained of the bandage feeling tight. He insisted upon leaving on the fifteenth day when the scalp showed only a few superficial granulating spots due to the severe contusion.

XIII. Hospital Record No. 12,041. T. H., 39 years. Fell from roof of house but showed little evidence of injury to the scalp. On admission the patient was semi-conscious, the pupils were irregularly dilated, there was bleeding from right ear,

other signs were negative. Exploration in the right temporal region disclosed a fracture of the parietal and temporal bones extending to the base in the middle fossa. Upon enlarging this a large epidural clot was evacuated. During his convalescence he complained of severe headache and dizziness and showed some symptoms of chronic alcoholism. His wound was slightly infected in the soft parts, but this cleared up readily, and he was discharged on the twenty-first day still complaining of slight dizziness after standing for a long period.

XIV. Hospital Record No. 13,550. J. J. McS., 43 years. An alcoholic, also an epileptic, fell during a convulsion. On admission was slightly stupid, pupils were normal, there were no paralyses, but a severe hemorrhage from left ear and a slight contusion above it. Exploration showed nothing until the mastoid was well exposed when a very slight fissure, beginning just above the lateral sinus and continuing to the base, was made out. The question of operating was a delicate one on account of the proximity of the sinus. After careful consideration it was decided to follow the teaching, so forcibly laid down by Dr. Van Lennep, to look at the bottom of every fissure. An opening was made with a gouge and mallet in the squamous portion of the temporal bone and enlarged to the fracture with rongeur forceps. Several fragments of the inner plate were driven into the brain and one into the lateral sinus, the latter causing the hemorrhage, which was easily controlled by a pack and the rest of the wound sutured. Seven hours later another convulsion occurred and the temperature rose to 104° ax., pulse 140. The resident surgeon removed the pack without our device, but fortunately no hemorrhage occurred. Delirium tremens developed almost immediately, there was vomiting of some old blood, involuntary stools and urination. He was seen in consultation with Dr. Tuller and received nux vomica, hypernutrition and plenty of whiskey. His temperature fell steadily but did not reach normal until the fifteenth day, partly on account of some infection of the scalp. He was rational on the fifth day and was discharged on the twenty-ninth day with a sinus down the bone, which rapidly healed under treatment at the dispensary.

A fracture of the skull derives its interest and importance, not from the lesion of the bone, but from the concomitant injury to the delicate organ it contains and the sequellae of

such an injury, and this must be particularly borne in mind when considering the treatment.

A number of theories concerning the mechanism of cranial fractures have been put forth, but Von Wahl's classification of bending and bursting fractures has been generally accepted. To understand the bursting fracture the skull which we know is elastic should be viewed as a hollow ball. When a blow is applied at one point this point and one directly opposite will be forced closer together, that is the diameter lying in the direction of the force will be shortened, and, conversely, all diameters perpendicular to it will be lengthened. Taking the first two points as the poles of the now flattened sphere the greatest circumference will be midway between them, that is in the equator, and it is in this line that the greatest stress will be felt and solution of continuity begin in one or more places. Similarly all circumferences parallel to the equator will be increased, and if the force is continued each in turn must give away until the poles are reached, so that the line, or lines, of fracture will be perpendicular to the equator, that is in an arc of the circle parallel to the direction of the force. At the moment of fracture the edges must separate, but as the skull, through its elasticity, resumes its normal contour the opening closes leaving only a linear or fissured fracture.

However, other factors must be studied for the above conditions would only apply to a sphere of equal strength throughout, while certain areas of the skull are not so strong as others. The base is considerably weaker than the vault, so it is the part most frequently broken.

There are certain arches, the so-called buttresses, which strengthen the vault as well as the base, and weaker bone lies between them. One lies antero-posteriorly extending through vault and base from the glabella to the inion. The others are transverse, the anterior running from the body and wings of the sphenoid bone through the external angular process and temporal eminence to meet in the mid-line. The posterior originates in the basilar process and arches through the petrous portion of the temporal bone and the parietal eminence to the mid-line. The transverse arches thus divide the base of the skull into three fossae, the anterior, middle and posterior.

A fracture commencing in the vault and extending to the

base may have its course changed by the heavier bone of the buttresses and be confined to one fossa. This rule is not always true for not infrequently two, and occasionally all three fossae, are involved. Again the line of fracture may run into and continue in the weaker sutures.

The bending fracture is due to stress applied in a small area so that first the convexity of the skull will be flattened and finally bent in until the bone gives way at the point of impact. The skull, which is composed of two tables with the loose diploe between, will not be uniformly injured throughout its thickness. As the outer plate is flattened the lines of force become divergent, so that when it presses upon and breaks the inner plate, the injury to it is often greater than to the outer plate. Formerly this was wrongly ascribed to the brittleness of the inner plate, therefore called the vitreous plate, for with the conditions reversed the lesion will correspondingly differ. A number of cases have been tabulated in which a spent bullet, penetrating from the opposite side of the skull, has struck the inner plate causing a simple fissure of it and a comminution of the outer.

A combination of the two is not rare and a depressed fracture with one or more fissures running from it will be found.

A third class has recently been added, the explosive, but it is almost invariably encountered in military surgery, so will only be mentioned. It is due to the modern rifle which discharges a bullet with high velocity into the incompressible, semi-solid brain and drives it with great force against and shatters the skull.

As stated the important element to be considered in these lesions is the damage suffered by the brain. This may be contusion, so slight that unconsciousness does not occur, or if death takes place a microscope may be necessary to reveal minute lesions, or so great as to cause extensive laceration of the meninges and brain substance; or compression which may be localized or general and due to bone, hemorrhage or other foreign bodies or to oedema.

The symptoms may be immediate, develop within a few days, or remote, due perhaps to sclerosis or softening of brain tissue around a laceration or foreign body.

Though a great deal has been written about the remote effects of cranial injuries, their symptomatology and operative and medical treatment, too little stress has been placed upon

their prevention. Late operations have been disappointing in a large number of cases and this is easily understood, for a small primary focus may give rise to a gradual but extensive brain lesion, and by the time focal symptoms have developed the injury is past repair. Knowledge of the function of the cortical areas is increasing but there remains much to be learned. Pressure in many locations gives rise to no symptoms which we can translate and can only be localized when the lesion has become extensive enough to involve a known center, and then operation often proves fruitless. Such sequellae as dizziness, headache, neuralgia, epilepsy or even impairment of mentality follow too frequently severe injuries to the brain under any method of treatment, and doubtless always will do so. A certain percentage, however, and not a small one, of the unfortunate outcomes can be avoided by early and prompt removal of their cause.

It does not lie within the domain of this paper to discuss the neurological localization of cerebral lesions, so the principal symptoms will only be mentioned, not elaborated upon. Unconsciousness, projectile vomiting, variation in the size and action of one or both pupils, the choked disk, the slow, full pulse, showing the attempt of the heart to overcome anaemia of the brain, the disturbance in breathing, perhaps stertorous or sinking into the Cheyne-Stokes type as the respiratory centers become exhausted, are all symptoms of compression.

Among those more suggestive of fracture are: Bleeding from the orifices, the nose, the mouth, and of the greatest importance in our experience, from the ear. The latter is possible without a fracture of the petrous portion of the temporal bone, but if there is no local lesion and it is at all profuse or persistent, a break is almost certainly present. It is more difficult to exclude an injury of the nose, but when possible hemorrhage from it, with or without spitting or vomiting of blood, requires careful consideration. Exophthalmos or ecchymoses of the eyelids or conjunctiva, especially appearing some hours after the injury, very frequently accompany fracture of the orbital plate, and similar discolorations of the skin about the mastoid process suggest very strongly fracture of the base of the middle fossa. Of course, contusions of the parts must be excluded.

Paralyses, due to pressure upon or destruction of cortical

centers or cranial nerves, may originate from a number of conditions, but a fracture should be eliminated before deciding upon further treatment.

The facial is the cranial nerve most frequently involved, and injury of the auditory usually accompanies it, next the abducens followed by the motor-oculi or olfactory. Under the circumstances deafness or loss of smell may be impossible to demonstrate, but loss of power in the others can be easily noted. It is possible for any of the nerves to be affected and the combination of several is not unusual, the commonest groupings are: The sixth, seventh and eighth; the third and fifth, and, occasionally, the ninth, tenth and eleventh. The symptoms of lesions of the cortical motor areas are too well known to require deliberation.

There is one absolute method of diagnosis and that is visual examination of the skull. In compound fractures a glance or the enlarging of the scalp wound will reveal the condition of the bone, but an exploratory incision will be required when no laceration is present. Under proper aseptic conditions we believe there are two simple fractures which should always be made compound, those of the patella and the skull. The consensus of opinion is universal in regard to the former and the results are excellent, and it is not logical to lay such stress upon the danger of infection in the latter, for a contused and lacerated knee joint is more susceptible to the action of pathogenic bacteria than is the dura. Therefore, we believe that when a fracture is suspected, from the history, the local injury, or neurological findings, an incision through the scalp should decide the diagnosis.

In considering the treatment we touch upon ground which is the seat of contention. There is now little question but that all depressed fragments of bones, clots or other foreign bodies should, when recognized, be removed, and the bleeding be controlled. In many cases this can readily be accomplished but in fissured fractures such conditions are difficult to diagnose. Even the short series of cases presented in this article has shown the frequency of such complications and demonstrated the value of our custom to trephine every fissured fracture and examine the condition of the inner table and the dura. In competent hands a trephining is not a dangerous operation, the brain does not suffer from the loss of

a small part of its bony covering, but on the other hand much suffering, or even death, may be prevented.

When basal fracture can be reached trephining is indicated to provide drainage and possibly help to asepticize the wound. The dura is closely attached to the skull in this part and is usually torn when the bone is broken, so removal or control of the subcortical haemorrhage is urgently demanded.

The value of decompression to relieve intra-cranial tension in a basal fracture which cannot be localized is receiving considerably study, but its value remains to be proved. The reports from the majority of surgeons have not been enthusiastic, and in a number of our own cases little or no result was obtained from the operation. When performed the trephine opening is best made under the temporal muscle, for the majority of fractures of the base involve the middle fossa, and if indications are discovered the opening is easily enlarged in the thin bone of this neighborhood and satisfactory drainage obtained.

The after treatment deserves more prominence than is usually accorded it and plays a very pronounced role in the immediate and later results. Elimination is the most important element and this should take place through the bowels, skin and kidneys. A serous meningitis may develop from no other cause than a disturbance of the gastro-intestinal tract, and obstinate constipation is characteristic of head injuries. If not relieved this will prevent or interfere with recovery, and aid in the formation of adhesions of the meninges with a later train of symptoms. Our practice is to give a strong purge as soon as the patient recovers sufficiently from the anaesthetic, and repeat as often as necessary, the condition of the tongue is the best index. The kidneys and skin can be washed out with water by the mouth or by saline in the rectum or under the skin. In severe cases a pint of hypodermoclysis two or three times a day for the first week will yield gratifying results. With restlessness morphia is indicated, though sometimes ineffective, and purging will overcome its constipating effect.

Rest in bed for two or three weeks to allow fair union of the fracture should be insisted upon. While motion between fragments is limited in the cranium, still the jar of walking must have some effect, particularly at the base, and here the closely adherent dura is so frequently lacerated.

The danger from anything which will cause a congestion of the brain, such as excitement, alcohol and early return to work, is common to all brain affections and should be impressed upon the patient. The length of the convalescent period should be gauged by the mental faculties called into play by the occupation, but during it the patient's mind should be kept occupied with lighter duties to prevent the supervening of a neurosis.

In conclusion: In the fourteen cases reported we have been able to show the frequency of an intra-cranial lesion complicating a fracture of the skull, and the danger of overlooking such a fracture if the history, the external lesions and the neurological symptoms are not given careful consideration. The last are the most exact, but when absent a good rule is to see the bone under every severe contusion.

All foreign bodies pressing in or upon the brain should be removed. As it is impossible to tell the damage to the inner plate in a linear fracture, the skull should always be trephined and an examination of the deeper layer of bone and the dura carried out.

TUMORS OF THE BLADDER.—These growths are not infrequent, about 3 tumors in 100 cases of disease of the uropoietic tract. Males are more often affected, 75% of the cases, females 25%, and the growths rarely develop before the thirtieth year. Of benign tumors, 98% are papillomata. In most instances, it is possible to diagnose whether benign or malign. Tumors which bleed uninterruptedly, show a smooth surface under the cystoscope with surroundings bullous edema excite suspicion of malignancy, for these symptoms evidence vascular disturbance due to infiltration of the bladder wall. The spontaneous healing of any bladder tumor is practically unknown, and hence radical operation is invariably indicated, because of threatening anemia from hemorrhage, because of the diminution in vesical space and because of a possible metamorphosis into a malignant growth. For benign tumors, the endovesical method should be employed, if possible, being less dangerous than the *sectio alta*, which is left as a last resort. Relapses occur in both methods, but the *sectio alta* favors the development of a general papillomatosis, and neoplastic infection may develop in the cicatrix of incision. After either operation, the bladder should be treated for a year with 2-5% resorcin solution twice weekly (Casper). After extirpation of a papilloma, cancer may develop in the bladder, with metastases to the scar of incision, and vice versa, carcinoma may cause the development of papillomata. According to Zuckerkandl, section of the bladder is the operation of election, as the endovesical method is limited in scope, though recent technical improvement should cause it to receive greater attention.—*Weiner. kl. Wochenschrift*, 1900, No. 22.

THE INFLUENCE OF HEREDITY IN PULMONARY TUBERCULOSIS, WITH
SOME REMARKS ON THE PREVENTION OF THE DISEASE
IN CHILDREN OF TUBERCULOUS FAMILIES.

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I FULLY realize that it requires some boldness to argue before a gathering of medical practitioners the opinion that heredity exercises no influence whatever in the propagation and spread of tuberculosis. The conception of tuberculosis as an hereditary disease is so deeply rooted in the minds of the profession and of the laity, and is so apparently well supported by a superficial review of the facts of personal experience, that he who attempts to question it lays himself open to adverse and often harsh criticism. Scientific investigation, however, should not be hampered by an undue regard for the traditions of the past and I do not hesitate to state after a careful study of this important question that neither tuberculosis itself nor a predisposition to tuberculous infection are hereditary, and furthermore, that the propagation of the hereditary view of this disease among the laity, by the medical profession, has sounded the death-knell in the ears of many a curable patient, and has had a paralyzing effect upon efforts at prophylaxis and treatment that are at once rational and efficient. I therefore ask that you will give fair and unbiased consideration to the facts that I shall present to you to-day because they are of the utmost importance in the management and prevention of this destructive malady.

The hereditary conception of tuberculosis is founded on facts correctly observed but, in my opinion, incorrectly interpreted. From time immemorial it has been noted that tuberculosis was very prevalent among the children of tuberculous parents. As the true cause of the disease was unknown it was naturally inferred that tuberculosis was a form of hereditary degeneration transmitted from one generation of a family to another. So fixed and definite were the laws of this hereditary transmission supposed to be that physicians did

not hesitate to predict the ultimate death from the disease of apparently healthy offsprings of tuberculous parents, and the unfortunate objects of these doleful prophecies confidently awaited the advent of the Destroyer with an air that was at once hopeless and pitiable. In the light of modern psychology there can be no doubt but that such a mental attitude contributed largely to impair the resisting powers of the body in such a way as to render more likely infection by the tubercle bacillus and thus aided the fulfilment of the unhappy predictions. This in itself constitutes a reason why physicians should seriously consider their attitude in this matter, and if a careful study of the facts shows that hereditary transmission plays little or no part in the spread of this disease we should lose no time in impressing this idea upon the public mind.

The first proposition that I desire to state is *that the direct transmission of tuberculosis from parent to child prior to birth is so rare as to be a negligible factor in the propagation of this disease.*

Thirty years ago this statement would have been rank heresy. To-day, I presume, there are few physicians who would seriously question its truth. As Adami has very clearly pointed out in his able article on "*Inheritance and Disease*," in Osler's *Modern Medicine*, in order to have a truly hereditary transmission of tuberculosis from parent to offspring, we must have the tubercle bacillus present either in the ovum or in the spermatozoon at the time of conception. Gartner has shown by an ingenious experiment on guinea pigs that the chances that an individual spermatozoon fertilizing an ovum should contain a tubercle bacillus are 1 in 2,250,000. Even then it is doubtful whether a spermatozoon thus infected by a tubercle bacillus would not be so deteriorated in its vital power that fertilization would be impossible.

It is, of course, conceivable, and indeed we know that it has happened that the foetus *in utero* is infected by the father or through the maternal circulation. It must be borne in mind, however, that such an infection is a post-conceptual acquirement and is distinct from the hereditary transmission. But even were it to be admitted for the sake of argument that prenatal infection constituted a sort of hereditary transmission, we find that it occurs so rarely as to be of no practical importance. In the medical literature of the world I am able to find only twenty authenticated cases of congenital tuber-

culosis recorded. Even Warthin, who is a warm advocate of the theory of placental transmission of the tubercle bacillus admits "that the actual number of observed cases of placental tuberculosis is but thirty, and the cases of congenital tuberculosis in which the intrauterine transmission is beyond a doubt are even fewer." The idea advanced by some that the bacilli are present in a latent form at the birth of the child is not in accord with our present knowledge of the tubercle bacillus and has recently been conclusively disproven by the delicate tuberculin tests. For example, Von Pirquet, in a series of cutaneous tuberculin tests upon 147 children under three months of age, observed not a single positive reaction, and in 64 children between three and six months of age, but three reacted. Professor Medin, of Stockholm, in a series of 400 similar tests on children less than one year of age, observed a positive reaction in but 10. The conception of the hereditary transmission of tuberculosis from parent to child, being an important factor in the propagation of the disease, is, therefore, untenable and is worthy of no practical consideration.

My second proposition is one that is more likely to challenge debate, namely, *that there is no hereditary transmission of a specific predisposition to infection by the tubercle bacillus to children of tuberculous parents.* In other words, I deny the inheritance of the *soil* as well as the inheritance of the *germ*. In making this statement I fully realize the frequency with which the children of tuberculous parents acquire the disease. The statistics of several thousand cases show that on the average about fifty per cent. of the children of tuberculous families become infected by the fifteenth year. The studies of Floyd and Bowditch of Boston, developed some interesting data on this phase of the subject.

They examined 679 children who lived in the home with tubercular parents, and found pulmonary consolidation in 36 per cent.; more than 66 per cent. showed symptoms of tuberculosis in some form. Sachs, of Chicago, examined all the children of 77 tuberculous families, 264 in all, and found evidences of tuberculosis in 29 per cent. In 131 cases of pulmonary and meningeal tuberculosis, Le Fetra found that the infected child lived in the home in close contact with tuberculous parents or friends in 40 per cent. of the cases.

But, says the advocate of the hereditary theory, all this goes to show that these children had an inherited tendency to the

disease. No more so, I reply, than the fact that the large percentage of children living with parents infected by the *pediculosis vestimenti*, who acquire a similar condition, can be construed as evidence of an inherited tendency to such vermin. In each case transmission of the parasites to the new host is dependent upon close and intimate association of the infected and uninfected individual; the question of the familiar relationship existing between the two does not enter into the question.

There is no lack of facts to substantiate this point. The most conclusive, perhaps, is that while approximately 50 per cent. of children of tuberculous parentage contract the disease if they remain at home, *practically none of them acquire it if taken away from their homes in early infancy*. The work of Epstein at Prague, and of Heller at Nuremberg, shows that children are completely preserved from the onset of the disease by this measure. At the orphanage of St. Martin, near Tours, 127 infants taken from tuberculous families, were followed up for many years, and only three developed tuberculosis. Weill states that in the social tuberculosis work at Lyons, he has removed 100 infants of tuberculous parents, to a more healthy environment, and not a single one has developed the disease.

These results are really astonishing, and there can be but one logical conclusion drawn from them, namely, that the essential factor in the acquirement of tuberculosis by children in tuberculous families is the constant and prolonged exposure to the infective organisms.

One of the strong arguments of the advocates of heredity in the propagation of tuberculosis has been what they term the "*Habitus tuberculosus*," or the tuberculous diathesis. They pretend to recognize the evidences of a predisposition in the physical appearance of children of tuberculous parents. Prominent among the so-called stigmata of the tuberculous predisposition are cited pallor, malnutrition, enlarged lymphatic glands, diseased states of the bones, etc. We must recognize, however, that these conditions are by no means confined to children of tuberculous parents, but are found also in children born of healthy parents, who have been exposed to contamination by the tubercle bacillus. In fact, it has been conclusively proven by clinical and post-mortem investigations, that the pallor, the malnutrition, the enlarged lymphatic glands, etc., that characterize the "*tuberculous diathesis*," are evidences not

of a *tendency to tuberculosis*, but of the *actual presence of tuberculosis*. In other words, these children have not inherited from their parents any peculiar physical predisposition, but have developed the conditions above referred to as a result of the acquirement of the disease itself by post-natal contagion.

There is another well authenticated fact that the hereditary theory of tuberculosis utterly fails to explain, namely, the rapid and fatal spread of tuberculosis among nations new to the disease. Prior to the advent of the white man the disease was practically unknown among the Indians and Negroes. An inherited predisposition, therefore, could not exist, and, in fact, we would have a right, if the hereditary theory were true, to expect that a relative immunity would be present.

Experience, however, shows quite the reverse to have been the case. Many tribes of Indians have been practically exterminated by it. Dr. Thomas Williams, wrote of the Dacotas, that of those over ten years of age who died of disease, one-half died of consumption. The death rate among the Negroes in the United States is three times as great as the whites, while in parts of Africa, in the Bahamas, at Gibraltar and other places, they have succumbed to it rapidly. A noted writer on this subject states that, "It has decimated the natives of probably every island that has been colonized by England during the last few hundred years." Certain writers have endeavored to account for the destructive influence of tuberculosis among these races by ascribing it to their unhygienic methods of living. These unquestionably have had their effect but they cannot account for the fact that the death rate among the Indians and Negroes should be from four to five times as great as that of the Russian Jews of New York City, living in the most overcrowded portion of the globe, in the midst of the direst poverty and the most unsatisfactory sanitary conditions. And yet we know that tuberculosis has existed among the Jewish race for forty centuries. Their comparative immunity strongly suggests the development of a racial, and this necessitates the supposition of an inherited individual immunity among nations in which the disease has been prevalent for many generations.

From the data just presented I feel fully warranted in stating that the idea of an hereditary predisposition to tuberculosis is a myth, born in the days of medical ignorance and kept alive to-day by tradition; that the so-called tuberculous diathesis as evidenced by glandular, lymphatic and nutritional disturb-

ances is in reality a form of the disease itself, and finally that the prevalence of tuberculosis in the offspring of tuberculous parents is fully and satisfactorily explained by post-natal infection at a susceptible age through constant and intimate association with infected individuals. Practically speaking, it is environment, and not heredity, that is responsible for the prevalence of the White Plague.

Let us now consider briefly how the idea that the important factor in the propagation of tuberculosis is not hereditary but acquired post-natal contagion is to be applied in the practical management of this disease. Should it be assumed that because the offspring of tuberculosis parents neither inherit the disease nor a predisposition to it, that therefore they should be encouraged to marry and to rear children?

Nothing could be more fallacious, and I wish to state positively that for a child to be born of a parent actively tuberculous is contrary to the welfare of the parent, of the child and of the community. The bearing of children is not only harmful, but in a large percentage of cases even fatal to a tuberculous woman. The child itself, unless the mother is in a very advanced stage of the disease at the time of its birth, is usually sound and healthy, but if we wish to assure ourselves that it will remain so it must be removed at once from the tuberculous family and reared among uninfected people. Such a measure as this is not only opposed by the parents, but deprives the infant of the maternal care and solicitude which, if not necessary to its proper development, is certainly desirable. The economic cost of such a prophylactic measure also is such that it is entirely impractical among the great mass of people.

As we have previously indicated in this paper approximately 50 per cent. of the children reared in tuberculous families become infected by the fifteenth year. The largest percentage of infections occur after the first year. There is only one positive method of prevention and that is the immediate removal of the child from the infected family and placing it in a healthy environment. When this is impossible, there are two principles that we must keep in mind in instituting prophylactic measures, *first, the prevention of infection by direct contagion through association with the tuberculous person or persons, and, second, the maintenance of the bodily health of the child at the highest possible point.*

In carrying out the first of these principles, namely, the prevention of contagion, the most rigid precautions must be observed. At no age is the human organism more susceptible to infection by the tubercle bacillus than between the ages of one and five years, and the opportunities for infection during this period are most numerous. A tuberculous mother should never be allowed to nurse the child at the breast. Artificial feeding on milk free from the tubercle bacillus should be advised. A tuberculous parent should not be allowed to kiss the child on the lips and should exercise great care not to cough in the child's face. The child should sleep in a separate room, which should be thoroughly ventilated. Crawling around on the floor on a dusty carpet and putting in the mouth objects that are lying around in the room occupied by a tuberculous individual, should be prevented as far as possible.

It can be readily understood, however, that when we come to the practical application of these measures in the average family they can only be partially carried out, and the opportunities for infection are so numerous and so constantly present that it is small wonder that so many children acquire the infection.

All children of tuberculous parentage should be closely watched and should they develop suspicious signs of infection, they should be carefully tested by tuberculin and treated at once if the reaction is positive.

The maintenance of the health of the individual to the highest possible degree, in order to render the child less susceptible to infection, requires the institution of hygienic methods of living with minute attention to detail. Good nutrition, fresh air, a proper amount of exercise and of rest are the fundamental necessities. Where the physician can secure the willing and intelligent co-operation of the parents in such cases the results are highly satisfactory, and will fully repay the family physician for his efforts in this direction. To my mind there is no nobler or more useful work in which a physician can interest himself than in preserving these children from the malady which has laid such a heavy load on one or both of their parents. After all the solution of the tuberculous problem lies in the proper care and protection of children, as the results of all modern investigations tend to show that a large percentage of the cases of tuberculosis among adults can be traced to the stirring up of latent infection acquired during childhood.

EDITORIAL

THE INSTITUTE JOURNAL AND THE DECISION OF THE TRUSTEES.

As is well known to our readers, the Trustees of the American Institute of Homœopathy at its first meeting, decided to annul the contract with the Medical Century Company, and to conduct a journal by, for and in the name of, the Institute. Before they entered into the contract of annulment with the Medical Century Company, it was found necessary to agree to pay the latter a large sum of money, namely \$3500. As this money is to be paid by the Institute for the return of a franchise which its committees and by inference itself gave away for nothing a general review of the entire facts will interest the profession. By way of preface we should say that law is law, and business is business; and this question cannot be looked upon from any other standpoints. Sentiment may be urged; but business knows no sentiment.

At the meeting held in Kansas City in 1908, a committee was empowered to secure a publisher for a journal to be known as the Journal of the American Institute of Homœopathy. It was to have appeared in weekly parts of 48 pages each. To prevent dissension, it was ordered that the publishers should not be members of the Institute. The price of said journal to the Institute was to have been \$2.50 to the Institute membership. A Committee of Ways and Means examined into the financial aspects of the question, and decided that the Institute could afford to make such a contract.

The Journal Committee had not been at work very long before they found it impossible to secure a publisher under the proposed terms. They therefore entered into negotiations with the Medical Century Company with the idea of securing that company as publisher. The best arrangement that could be made with the latter was for a monthly journal of forty-eight pages. These terms not being in accordance with their instructions, the Committee presented the facts to the Executive Committee of the Institute and asked permission to make a contract with the Medical Century Company that the latter

might publish the Institute Journal. The permission was granted. With the terms of this contract and our criticism of the same, our readers are well acquainted.

The Institute, at its meeting in Detroit, took up the Journal question at special sessions, and after passing several amendments, finally referred the whole matter to the Trustees, at the same time instructing the Journal Committee to remain in charge until September 26, 1909, and then to turn the Journal over to the Trustees.

At first sight, it would impress one that the contract between the Journal Committee and the Medical Century Company was of such a character that its annulment at this particular time was not debarred by any legal technicalities. Taking the question of "intent," it is evident that both the Committee and the Medical Century Company expected the contract must come up for ratification or rejection by the Institute at its next regular session. As a matter of fact, the Institute neither accepted nor rejected the contract, but referred it to the Trustees for final action. Before doing this, however, the Institute accepted the report of the Journal Committee offering amendments to the contract and then instructed that committee to remain in charge until the first meeting of the Trustees. Legally, this action appears to have shown "intent" that the Journal should be continued. So far as is known no member made any formal protest or protest of record against the payment of money on said contract to the Medical Century Company.

This was the state of affairs when the Trustees met. They found, as we intimated they would find, that the Institute would shortly become bankrupt if the contract was permitted to continue. If the arrangements then existing should be continued, the Institute at the end of its fiscal year, would have a deficiency of \$2000.00, and this, too, giving an optimistic view of the receipts and cutting down the expenditures wherever possible. In five years, it was certain that the deficit would amount to more than five times this amount because the Institute obligations would increase rather than diminish, while the increase in membership would not keep pace with it. The financial phase was, we believe, the only one discussed. It was regarded as all sufficient.

When, however, it came to annulment of the contract, it was found necessary to consult eminent attorneys; and di-

verse opinions were received, the majority being in favor of the view that the contract could not be annulled without the consent of the Medical Century Company. It was then deemed best to make the best possible terms with the Medical Century Company rather than stand suit for breach of contract. A lawsuit would have entailed great expense to the Institute and loss of time to many of its members. The best possible terms were \$1500 to be paid the Medical Century Company, on or before January 1st, 1910, and \$2000 on or before October 1st, 1910.

We feel that the Trustees acted wisely, however much we deplore the payment of \$3500 to regain a franchise with which we parted for nothing. To have let the matter go into the courts would have occasioned dissension sufficient to disrupt our organization. Members, like ourselves, may have thought the question an easy one to decide. When we presented the facts to an attorney on our own account, he decided that the contract was a binding one, for the Institute had, at its Detroit meeting, recognized the Journal Committee and the Executive Committee as its agents without any protest whatever.

The legal technicalities were all the more involved by reason of the fact that at the time of the original contract, the Institute was an unincorporated body, and the Medical Century is said to have been incorporated, but is alleged to have allowed its charter to lapse by neglect of a legal technicality. The incorporation of the Institute threw the old Institute out of existence. The complications thus made possible are too numerous for our editorial space. Besides a review of them would be useless, for the Trustees did right and should be upheld.

Unquestionably the payment of the \$3500 will be a hardship to the Institute, and members of the profession may ask where is the sentiment on the part of the Medical Century Company leading that organization to exact its pound of flesh. The answer is ready. The entire transaction was a business one, and business knows no sentiment. We see but one way out of it, and that is for the Medical Century Company generously to donate the amount to the Institute.

BY WHAT ROUTE SHALL THE MEMBERS OF THE INSTITUTE REACH LOS ANGELES?

THE Committee on Transportation of the American Institute of Homœopathy is making every effort to select a route to Los Angeles that will be acceptable to as many members of the Institute as possible. It is desired to have as many members from the East as possible to go by the same route in order that special arrangements may be made for transportation and a low rate obtained.

The Santa Fe route goes direct from Chicago and Kansas City, and enables the tourist to see the Grand Canyon of the Colorado. The objection to this route seems to be that parts of the journey are likely to prove warm.

There are four other roads that reach Denver, and all have excellent service. In the words of the Committee:

"The trouble is from Denver on. If we want the Grand Canyon of the Colorado going we must go via the Santa Fe, hot or no hot. If we would go further via the Union Pacific, we must go up to Cheyene and on to Ogden through Wyoming and Utah, a splendid roadway, fine service and some scenery. Whereas if we want the Royal Gorge, Glenwood Springs, Castle Gate, etc., and then Salt Lake, we must go from Denver via the Denver and Rio Grande. If we would climb Marshall Pass, 10,800 feet, the highest railway point in this country, and go through the Black Canyon of the Gunnison, viewing the Government's great irrigation tunnel, just opened by President Taft, then we must leave the main line of the Denver & Rio Grande after going through the Royal Gorge, and take the narrow gauge of the same line via Marshall Pass, Gunnison and Montrose to Grand Junction, where we will again strike the main line to Salt Lake. From there it would be over the new Los Angeles, San Pedro and Salt Lake road, the Clark road, to Los Angeles.

"If we would do the Royal Gorge on the Rio Grande road and also the Grand Canyon of the Colorado, we might run out through the Gorge back to Pueblo, there taking the Santa Fe on to the Grand Canyon and Los Angeles.

"Those who wish to take a side trip of a day from Denver to see the celebrated scenery on the new 'Moffatt Road' should say so. Likewise those who would like to loup the Georgetown Loup from Denver, which the Institute louped in

1894. From Colorado Springs, if we want to stop there a few hours, the Garden of the Gods and a trip to Pike's Peak are offered."

From this statement it can be seen that the Transportation Committee has a great many things to consider in deciding upon which would be the most acceptable route. It is their desire that as many members of the Institute as possible should write to the Secretary of the Committee, Dr. T. E. Costain, No. 42 Madison Street, Chicago, and state their preference.

Elaborate arrangements are being made by the California physicians to secure a large meeting and to entertain the Institute royally.

There will be no better opportunity offered for members of the Institute to see this wonderful country than will be afforded at the time of the Los Angeles meeting. The Transportation Committee has put itself in touch with the management of the various lines and attractions, and will render every possible service to the visiting members in making short tours along the Pacific Coast or to any other portion of the West that they may desire.

Great credit is due to Dr. T. E. Costain and Dr. C. E. Fisher for the energetic manner in which they have carried out their work, and we would urge upon all members to write them giving their views and to assist them in every other possible way.

REFRACTION BY THE GENERAL PRACTITIONER.

THE Ophthalmic Section of the American Medical Association has appointed a special committee to promote a working knowledge of simple refraction among family physicians. Their special design is to encourage the training of students in the colleges to do simple work in refraction and to urge upon State Medical Boards the importance of requiring a working knowledge of this branch of medicine of all who apply to them for licenses.

The need for such a movement is at once evident when we recall the fact that a large number of physicians are accustomed to refer all such cases to the opticians. These men as a class are entirely unfitted for such work; their knowledge of the relation of the eye to the general health of the body

amounting to practically nothing, and in most instances their knowledge of the eye itself is very superficial.

With but little training the physician would be much more capable himself to prescribe the proper glasses than is the optician to whom he is accustomed to refer these cases.

Aside from the fact that this custom is prejudicial to the best interests of the patient it is also a financial loss to the medical man himself. A short course on this subject during his student days would put him in possession of such knowledge regarding refraction as would materially increase his income.

The interest of the patient and the interest of the physician, therefore, would seem to demand that this matter be given much more serious attention by the profession than it has in the past.

The most direct method of securing the teaching of a working knowledge of simple refraction in medical schools would be to persuade the State Boards of Medical Examiners to require such a knowledge from each applicant for a license. The move is one that should have the support of every physician, and we trust that the committee having the matter in hand will meet with encouraging success.

THE RATIO OF ALCOHOLIC DISEASES TO MENTAL AND NERVOUS DISEASES IN THE GERMAN ARMY.—Dr. Drenkhalm (*Deutsche Militarärztl. Zeitschrift*, 1909, H. 10) considers alcoholphobia and abstinence from alcohol as causative of an increasing neurotic condition in the German army, though admitting that there are many other etiologic factors: By statistics he shows that alcoholic disease, because of restriction in drinking, has decreased to 1-5 of its former figures (1873-74, 3.21; 1886-87, 4.19; in the last year 0.7-0.9 in 10,000). With restriction in the abuse of alcohol, lesions of the nervous system and mental and nervous diseases should have correspondingly decreased. This is not at all the case, for, with the decrease in the use of alcohol, these diseases have yearly become more frequent. In 1883-84 there was 1 alcoholic to 1 case of mental disease (1); in 1905 to 1 alcoholic there were 15 mentally diseased and 23 cases of nervous troubles (1:38); the number of mental and nervous cases is seven times greater than formerly. Because of these facts the author attributes the mental-nervous increase to the restriction of alcohol, and in conclusion remarks: From the professional viewpoint, alcohol is not to be unconditionally condemned, and fear of it is as foolish and nerve-racking as germophobia. The axiom: Moderation is good, but it should be moderate, sums up his opinions.

GLEANINGS

MEDICAL VERSUS LEGAL RESPONSIBILITY.—Modern science leads to a broad and humane consideration of human responsibility, but, unfortunately, its legal aspect has not advanced correspondingly; for the reason that those who create and who administer the laws regard responsibility from the social point of view and ignore the psychologic interpretations. The question of legal responsibility usually is decided by the test as to whether the culprit was conscious that his act was right or wrong; notwithstanding the fact that many insane individuals are impelled to do acts which they recognize as being wrong and of which they are fully aware of the consequences. The author strongly condemns the manner in which jurists continue to employ this ancient “unscientific, irrational, and inhumane” test. In cases of mania, except those hyperacute and chronic cases in which the confusional state is so pronounced that the patient is incapable of understanding the nature of his acts, there is diminution of cerebral inhibition so that even slight stimuli may lead to impulsive and criminal actions of which the patient may be perfectly aware of the true significance. A certain kind of paranoia leads to more forensic errors than any other form of insanity. This class comprises those cases in which the patient appears to be perfectly sane on all subjects but one. Such an individual commits a crime, the nature of which he is perfectly conscious, in a spirit of revenge which is prompted by delusions of persecution. The legal consideration of such cases should include the delusion, the defective power of inhibition, and the abnormal feeling. A case of paresis which has not progressed to obvious dementia may commit various crimes while being fully aware of the illegality of his acts, and, though these acts are only symptoms of his insanity, the patient may be punished as the outcome of the test of “right and wrong.” Early in senile dementia, too, the patient may commit the most extraordinary acts, and, even though conscious of their nature, he may be considered responsible from the scientific standpoint. After dealing in a similar manner with the forensic aspects of high grade imbeciles, drug intoxications, dipsomania, states of remission of insanity and epileptic states, the author concludes that in cases of insanity, and in some other psychopathic states there may be fair comprehension of the illegality of an act without, however, sufficient cerebral inhibition to prevent its performance. For this, and other reasons, he believes that a revision of the classical test of “right and wrong” is essential. Alfred Gordon, *Jour. of the A. M. A.*, Sept. 18, 1909.

CHARLES D. FOX, M. D.

THE USE OF LECITHIN IN DELAYING MENSTRUATION.—In various affections, e. g., chlorosis, incipient tuberculosis, etc., it often happens that menstruation, recurring at short intervals, increases the anemia and lessens

the resistive forces of the organism. In such cases, delay of the menses is desirable, and this is obtained, according to H. de Wilczinski (*Sem-Med.*, 1909, No. 14) by the use of 0.1 to 0.2 g. of lecithin t. i. d., beginning treatment in the interval between two menstruations, and continuing it 10-14 days. In a patient with a two weeks' interim, the lecithin medication lengthened this to three, then four weeks. Also in regular, but too profuse menses, the period may be delayed 1-2 weeks. In a case of fibroma, with 14 days' interim, delay of a week was obtained, whilst in a severe chlorosis, the remedy was ineffectual—the only failure among 20 cases. No injurious effects were noted. In some phthisical patients a slight (0.5°) rise of temperature was observed, avoided, however, by decreasing the lecithin dosage.

TECHNIC OF SERUM INJECTION IN MENINGITIS CEREBROSPINALIS EPIDEMICA.—Ch. Dopfer (*Prog. med.*, 1909, No. 17) emphasizes the need of correct technic in the injection of the specific serum. Subcutaneous injection is ineffectual since thereby the specific substance does not reach the cerebro-spinal fluid; injection must be made after previous lumbar puncture in the arachnoid space, the puncture being made with the patient lying on his side, with strongly flexed thigh and arched spine, between the fourth and fifth lumbar vertebræ, a needle 8-10 cm. long, boiled for 10 minutes, being used. If the needle strikes bone, it should be slightly withdrawn and changed in direction, and if blood continue to flow, the needle should be elsewhere inserted. The cerebrospinal fluid flowing out is caught in a graduate, and it is best to remove a quantity of fluid larger than the proposed dose of the remedy, e. g., 25-35 cc. Where 20 cc. of serum serves as the injection, after operation the patient should lie with elevated pelvis for some hours to obtain better diffusion of the serum.

Dose varies according to age; during the first two years, 10-15 cc.; in older children, 15-20 cc.; in adults, 20-40 cc.. The injection is repeated on the following days, and its repetition depends not only upon the effect upon meningeal symptoms, but also upon the general condition, which, if unchanged, demands further use of the remedy. The earlier treatment is begun, the better the result. Early bacteriologic examination is also to be commended, for not all cases of meningitis are due to Weichselbaum's coccus. In all cases where the cerebro-spinal fluid is turbid, injections should be begun. In case of a pneumococcus or streptococcus is etiologic, meningococcic serum is useless. If bacteriologic examination prove negative, the serum treatment should be instituted until the cure commences.

SYPHILIS D'EMBLEE AND SYPHILIS OF PHYSICIANS.—Prof. L. Waelsch in the *Munch Med. Wochenschrift*, 1909, No. 17, states that formerly he had no belief, like many other syphilographers, in lues d'emblee, i. e., cases of general syphilis developing without the primary lesion. His experience, however, during the last ten years has led to considerable vacillation from such a viewpoint, and he describes several cases among students and practitioners where observation showed with almost experimental exactness that the penetrating virus does not necessarily cause a primary lesion. A physician developed a violent, febrile angina in which the ordinary remedies failed. Waelsch found, on careful inspection, a maculo-papular syphilide, with slight general sclerosis of glands. No primary lesion was

discoverable. A student fell ill with fever, weakness, slight angina and an exanthem. Measles was suspected, but Waelsch diagnosed lues, whereat the patient was greatly terrified as he had observed no lesion on the genitalia. A third similar case was that of a physician with a large obstetric and gynecologic practice. Because of these observations, Waelsch admits the possibility of syphilis d'emblee, in the sense that there are cases of general lues where the virus enters directly the blood or lymph channels. In apes also, the experimental primary lesion is often scarcely noted and not at all characteristic. Of six cases, where the disease was acquired by practicing physicians, the infection occurred mostly on the fingers, more rarely on arms or face. The lesion began as purulent paronychia or panaritium, usually with lymphangitis and adenitis; no characteristic primary effect, however, being noted. In the matter of prophylaxis, there is no absolute protection. The hands must be kept skin-tight, and in operations on leptic patients, gloves should be worn. Wounds acquired in any operation are to be immediately cauterized. Naturally, an infected practitioner can do no obstetric, gynecologic or surgical work, whilst the primary lesion is in evidence. Waelsch emphasizes in conclusion, that a little care would have prevented infection in most of his cases.

THE PROPHYLAXIS AND TREATMENT, ESPECIALLY SURGICAL, OF TUBERCULOSIS OF THE CERVICAL GLANDS.—In the *Deutsche Zeitschrift f. Chir. B.* 97, H 3-4. Dr. A. Most, though admitting that infection of the cervical glands is possible via the blood, considers, in view of his clinical experience and anatomic researches that infection by way of the lymph channels is much more frequent, and is essentially centripetal in character. As to locality of infection, the entire lymph circle of the throat is implicated, some portions of which, however, Most considers peculiarly apt to bacillary entrance, viz. the transition from derm to the mucosa of nose, mouth and eyes, as well as the outer part of the nasal and buccal cavity, with the rhagades, erosions, eczemas and inflammations often noted at these points.

The local infection may be healed up by the time the glandular process develops. Waldeyer's lymphatic ring, and in particular the palatal and pharyngeal tonsils, the author considers points of danger. At the pharyngeal lymph zone, the air current turns sharply and hence gives opportunity for the deposition of corpuscular elements; infection from the digestive tract is also possible here. Anatomic research has likewise shown that from the tonsils there is so great a throwing off of leucocytes that epithelial defects are common, and hence avenues of infection are easily opened. Finally, clinical experience has demonstrated the lymphatic ring as the commonest point of infection. The correspondent glands being most often the infected ones. Knowing the avenues of infection, much is offered in the way of prophylaxis. Experience teaches that in children the disease may follow the ingestion of food products from tuberculous cows. The upper digestive tract and its cervical glands being affected; hence, much attention should be given milk and its products. The commonest infection, however, is always from contact with the sputum and pus from tuberculous patients. These should avoid contact with children and exercise the greatest care in disposal of sputum. Children themselves should be kept scrupulously clean, and never allowed to stick things into their mouths nor pick their noses. Phagades and eczemas are to be energetically handled.

The chief source of infection, the palatal and pharyngeal tonsils, is to be carefully watched and hypertrophies removed. If the glands are already infected a reborant and resorbent treatment is to be instituted, which, if it fail, is to be followed by operation. If several glands are involved, systemic radical extirpation, under general anesthesia, is indicated, sparing the nerves and vessels as much as possible. The incision depends upon the position of the gland; in most cases, the author has succeeded best with Kocher's collar incision, the cosmetic results being most satisfactory.

THE TREATMENT OF FRACTURES.—According to Prof. E. Lexer, the old-fashion rules as to the treatment of fracture have been relegated to the ash heap. Formerly, the first thought was to get good anatomic healing of the broken bone. This, however, is not the chiefest need; the retention of the use of the limb must be simultaneously striven for, which, formerly was rather neglected or held to be secondarily essential. The disadvantages of immovable dressings should be done away with, for if function is not lost during the treatment of the fracture, the limb, after healing, is still useful. The vital point in modern treatment is, therefore, that the most important demands, viz. the correct coaptation and healing of the parts and attention to the function of the limb be not successively but synchronously provided for. According to the author these postulates may be attained in four ways: (1) by operative union; (2) by removable stiff dressings; (3) by extension bandages or splints; (4) by bandaging in correct posture, leaving room for the execution of non-dangerous movements. In general, the early operative treatment corresponds best to the modern idea, sufficing for the patella, olecranon, and splinters, but not for fracture of the shaft. Secondly, removable stiff dressings also fulfil the requirements. After the first three to five days of rest the limb may be cautiously taken out, lightly massaged, actively and passively moved, bathed with warm water, and replaced. Ambulatory apparatus commonly does not possess such advantage. Thirdly, we have the extension bandage, which Bardenheuer found serviceable in nearly all fractures. It permits early mobility and massage and corresponds to most of the extension apparatus of the present day. To these three methods, the author adds a fourth, viz. bandaging with the limb in correct posture and with retention of movement, a procedure, however, limited in scope, in fact, no method is applicable to any and all fractures and experience is the determinant factor. Operative union of the ends will always be of limited employment. The author joins, by operation all patellar fractures, olecranon fractures extending into the joint, joint fractures and difficult reposition, also shaft fractures, either double or difficultly approximated, but in these cases only after non-operative measures have failed. Technic should be as simple as possible. In compound fractures the healing of the wound is above all else, essential. The bone-ends being approximated as well as possible. The fundamental idea governing the author is that future use of the limb is to be worked for simultaneously with the attainment of correct anatomic union.—*Minch. med. Wochenschrift*, 1909, No. 12.

EPILEPSY IN ITS RELATION TO MENSTRUAL PERIODS.—Alfred Gordon has encountered 23 cases of epilepsy in whom the attacks appeared only during or immediately preceding the menstrual periods. Only five of these cases presented symptoms of dysmenorrhœa, and, in spite of gynecologic treat-

ment, the attacks remained uninfluenced. In fourteen cases the attacks occurred with extraordinary precision a day or so before the onset of menstruation. This regularity leads to the inference that there is an etiologic relationship between the function of the ovaries and the epileptic manifestations. It is admitted that ovulation is capable of producing cerebral irritation in predisposed individuals. Periodic delirium and confusional states also have been known to occur only during menstruation, and aggravations of pre-existing psychic disturbances may coincide with the menstrual periods. In view of the unsatisfactory results that he obtained with bromide treatment and being influenced by the evident relationship between the convulsions and the ovarian function the author adopted, with good results, thyroid treatment for these 23 cases. Commencing at gr. iii doses and increasing to gr. v. doses t. i. d., thyroid extract was administered during the entire menstrual period, except for several days prior to the onset of menstruation. At this time bromides were substituted.—*N. Y. Med Jour.*, Oct. 16, 1909.

CHARLES D. FOX, M. D.

HEREDITARY SPASTIC PARAPLEGIA.—Hereditary spastic paraplegia is considered to be the result of an inherited tendency to premature physiologic senescence of certain spinal cord systems. The condition usually appears in the pyramidal tracts, but it has been found in the lateral cerebellar tracts, and in the columns of Goll. The diagnosis is justified, according to Sachs, when a case of spastic paraplegia with increase of reflexes, rigidity and contractures shows no evidence of atrophy, nystagmus, speech disturbance, or of involvement of the vesical and rectal reflexes, providing that the hereditary nature of the condition is apparent. The author, John Punton, reports seven cases appearing in two families. In the Moats family the disease first appeared in the mother after her marriage at the age of 23; she being still alive, aet. 59. Her three children, all males, first experienced symptoms at the ages of sixteen, fifteen and fourteen, and are still alive; being at the ages of thirty-four, thirty-two and twenty-four respectively. The cases reported in the Cannon family include that of the mother and two of her children; her third and eldest child, a boy of ten years, so far having escaped the disease. The genealogy of this family is incomplete, but the disease probably did not originate in the Mrs. Cannon, who is reported, for it is known that a sister suffers from spastic symptoms similar to her own. Mrs. Cannon, aet. 43, first noticed symptoms of the disease when a child. One daughter, aet. seven and a half, began to develop spastic symptoms at the age of six, and a second daughter, aet. five and a half, was unable to stand alone until three years of age, and is now affected with spastic paraplegia. As such cases are doomed from the very moment of conception, the author concludes that "in certain cases and to some extent, at least, marriage should be governed by law."—*Jour. of Nerv. and Mental Diseases*, Oct., 1909.

CHARLES D. FOX, M. D.

THE EYES IN EPILEPSY.—Rodier, Pausier and Cans have examined the eyes of 50 epileptics and find that the following conditions are usually present:

1. Immediately before the fits, mydriasis, ischæmia of the retina, fol-

lowed by hyperemia and amblyopia, and often accompanied by hallucination.

2. During the fits, injection of the conjunctiva with anesthesia or hyperesthesia, mydriasis, absence of pupillary reflexes, congestion of the disc, with enlargement and tortuosity of the retinal veins.

3. Immediately after the fits, slight contraction or normal size of the pupils, with sluggish reaction, hyperemia of the fundus, lasting from a few minutes to 12 hours, according to the severity of the fit and amblyopia.

4. In the intervals between the fits slight mydriasis (pupils 4 M. M. and over) and irregular contraction of the field of vision, with at times more or less advanced atrophy of the optic nerves, and almost always a peculiar choroidal pigmentation suggestive of hereditary syphilis as a cause of the epilepsy.—*The Homeopath. Eye, Ear and Th. Journal*.

WILLIAM SPENCER, M. D.

THE INFLUENCE OF ADRENALIN UPON INTRAOCULAR TENSION.—The author, after a series of experiments in eyes of different tensions, concludes that the opinion of certain authors that adrenalin has no effect on the tension of the eye is faulty.

Instillations of four to five drops of the 1-1000 solution of adrenalin, or subconjunctival injections of a smaller quantity causes a primary reduction, followed by a marked increase in tension. Subsequently there is a secondary reduction of tension. These changes are observed in normal as well as glaucomatous eyes. The reaction in normal eyes is not very great, but in glaucomatous eyes it is quite marked. In normal eyes, the effect of the adrenalin passes away in a few hours, whereas in glaucomatous eyes, the effect continues for several days.

In a certain number of cases of glaucoma the adrenalin produced a lowering of tension, whereas in others, it caused attacks of acute exacerbation. Repeated instillations in normal eyes are apparently without much effect, but in glaucomatous eyes there is a marked increase in tension after the final instillation. The result of the combined use of eserine and adrenalin on tension indicate the two opposing forces are at work. Therefore in eyes that have a predisposition to glaucoma it is advisable to combine eserine with the adrenalin. The changes in intraocular tension are best explained by the action of adrenalin upon the vascular system of the eye.—*Dr. J. Rubert, Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

REFLEX AURAL SYMPTOMS CAUSED BY EYE STRAIN.—The author calls attention to the influence of eye strain upon the auditory apparatus. He refers to his previous mention of tinnitus aurium; and, from experience, is convinced that this condition deserves greater consideration than it has so far received. While tinnitus is the aural reflex which he has most frequently observed, there are others which are described as a "muffled" or stuffed, sensation in the ear, pain around and in front of the ear, and impairment of hearing. Of tinnitus due to eye strain he has observed three varieties. The vascular type, the whirring or fluttering sound, and the intermittent tinkling. Proof of the ocular origin of the aural sensation is found in the fact that they disappear after relief of the eye strain; that the affected ear is usually the one on the same side as the most trouble-

some eye; that they are more pronounced when the eye strain is most annoying, and are brought on or intensified by the use of the eyes. The ocular trouble is often astigmatism of a high degree and associated with other marked refractive errors, but in some cases it is chiefly heterophoric. From the fact that the nerve supply of the tensor tympani is derived from the motor branch of the fifth nerve, and the stapedius receives a twig from the seventh, it is easy to see how eye strain may produce irregular contractions in these two muscles as in the orbicularis.—Dr. Samuel Theobald, *Annals of Ophthalmol.*

WILLIAM SPENCER, M. D.

THE ETIOLOGY OF UTERO-VAGINAL PROLAPSE.—Nebesky (Innsbruck) has studied the causes underlying these conditions, and has given his results in an extensive article. Normally the pelvic contents simply lie upon the bony and muscular floor of the pelvis, and by the arrangement of the latter, and by their own position are restrained from prolapse. These conditions are sufficient to overcome the influence of increased abdominal pressure. During labor and from other causes a relaxation of the pelvic floor is brought about, especially of the levator. The elasticity of the pelvic connective tissue and of the peritoneum are not alone able to retain by suspension the organs in their position, and in consequence of the descent of their supports, the organs follow. With this loss of tension of the pelvic floor, an enlargement of the opening is associated. With retroversion a descensus may occur even without a sinking of the pelvic floor, and the intra-abdominal tension may press the organs into the axis of the vagina. The function of the ligaments is to maintain the uterus in a correct position, i. e., anteversio-flexio, and thus indirectly protect it against prolapse. In retroversion they may for some time prevent prolapse and also its enlargement. Prolapse of the vagina, bladder and ultimately of the intestines depends upon the same principles as does hernia; the opening of the pelvic floor and of the outlet form the hernial ring and the vaginal wall forms the hernial sac. Prolapse of the uterus, though similar to other hernias, differs from them because upon it as a firm body the pressure is only effective in the direction of the expulsion. If the long diameter of the uterus and that of the vagina are in the same direction, as in retro version, the uterus is forced into the vagina. For this result there is already provided a hernial opening, whose external orifice is narrowed but not closed. Thus by the conjunction of favorable circumstances, even without defects or insufficiency in the normal closure of the pelvic floor, a primary uterine prolapse may occur with inversion of the vagina, and only secondarily a procidentia of it and of the bladder. Under favorable circumstances a retro-deviation does not lead to prolapse, but remains as such. Mostly uterine prolapse is combined with vaginal prolapse or it is favored or increased thereby. In consequence of their firmer structure and of their attachment to each other and to the pelvic walls, the pelvic organs form, as distinguished from the thin walled and easily movable intestinal loops, a single, rather consistent mass which lies upon the pelvic floor and covers the opening. Therefore it is possible that not every defect of the latter leads to prolapse, and many cases of prolapse remain long of moderate degree. All varieties of prolapse are the result of similar factors; the strength, duration and direction of intra abdominal pressure, the width and form of

the opening and the amount of the resistance which is furnished by the coherence and attachments of the organs with one another and with the pelvic walls.—*Arch. f. Gyn.*, Vol. 87, 497.

THEODORE J. GRAMM, M. D.

CHANGES IN THE UTERINE GLANDS DURING THE INTERVAL AND PREMENSTRUAL STAGE.—Schroder (Rostock) has carefully studied this subject and concludes: The gland epithelium of the uterine mucous membrane passes through certain changes, from the eleventh day after the beginning of menstruation onward, which consist in the appearance in the protoplasm of the cells of substances not really staining, at first in the form of drops, later in larger quantities, and which finally leave the cells and are poured out into the gland lumen. Coincident with these changes there are others whose main characteristic it is that none of these substances are demonstrable, but that the protoplasm at first towards the cell boundaries takes up hæmatoxylin instead of eosin and by and by becomes almost entirely changed in this manner. These masses also taking the hæmatoxylin stain are extruded into the lumen. The gland epithelium is at almost all times capable of secreting mucus; this increases when changes like swellings appear in the cells. The non-staining substances first mentioned above and those taking the hæmatoxylin stain are demonstrated to be mucus.—*Arch. f. Gyn.*, Vol. 88 1.

THEODORE J. GRAMM, M. D.

SO-CALLED AXILLARY MAMMARY GLANDS.—Seitz has studied the strange phenomenon of supernumerary mammary glands and particularly the enlargements sometimes seen in the axilla during lactation. Of the latter he says the sweat glands of women during puerperal period regularly develop an increase of their function like the mammary glands only in lesser degree. Under conditions not well understood, it sometimes happens that during pregnancy and the puerperal state the sweat glands of the axilla become greatly dilated. The orifice is narrowed or obliterated. Sweat glands of usual size and structure are scarce. Besides these dilated glands there are formed branching sweat glands, which are also found in the non-pregnant. There are also glands which show the typical structure of lacteal glands and exhibit all stages of secretion. The secretion contains colostrum and lacteal bodies, so that it could be milk, but is not so necessarily, since on analysis it might have another chemical composition. It has been possible to demonstrate the transition of sweat glands into lacteal glands, and these are therefore highly differentiated sweat glands. These findings confirm the newer views that the sweat and milk glands are developed from the same embryonic structure. The milk glands of the axilla have no particular excretory duct and discharge only through the narrow duct of the sweat gland. The latter does not at all or only partially participate in the hypertrophy and differentiation of the dilated and enlarged sweat glands. Since the excretory ducts are quite narrow or even obliterated there results a retention of the secretion, that is of sweat or of milk-like fluid. It thus happens that swellings of various size may develop, from which the retained secretion may be pressed. These swellings recede from the fifth to the seventh day, and by the fourteenth day have mostly disappeared. These glandular swellings have nothing in common with accessory mam-

mæ or with isolated fragments of mammary tissue. They form from branching sweat glands through the stimulus of pregnancy; just why this occurs the author could not determine. If only the central portions of these tumors were examined without special attention to their relation to the sweat glands, they could readily be mistaken for adenomata. It is characteristic of them, however, that they develop coincidently with lactation, their first appearance may even show at puberty and increase at menstruation.—*Arch. f. Gyn.*, Vol. 88, 94.

THEODORE J. GRAMM, M. D.

TUBERCULOSIS OF THE FEMALE GENITALIA.—Simmonds, the prosector of the General Hospital at Hamburg, has found that genital tuberculosis is present in one and a half per cent. of all women dying. It is most frequent in the second decennium, and diminished from then on to the climaxis. In 87 per cent. of the cases the tubes are affected, and the uterus in 76 per cent. The disease almost always affects individuals with older tubercular changes in other parts of the body. The tubercle bacilli are deposited from the blood upon the mucous surfaces and cause a superficial necrosis of the epithelium or the formation of nodules. The former process occurs most frequently in the uterus, and the latter in the tubes. After that the process only passes to deeper layers. In the tubes there is an early stage of tuberculosis in which changes are absent in the walls and tubercle bacilli are only encountered in the secretion of the lumen (bacillary catarrh). Besides the hematogenous tuberculosis in rare cases there occurs an extension of the disease from the peritoneum to the fallopian tubes. Primary genital tuberculosis from infection through the vagina is extremely rare, only once in eighty cases. Genital tuberculosis usually proceeds from the tube. From here the uterus and peritoneum are often infected. Endometritis and salpingitis tuberculosa may also, just like double salpingitis, develop simultaneously and independently. A coincident tuberculosis of the uropoetic and of the genital systems is always to be regarded as co-ordinate. Pregnancy may continue even with widespread genital tuberculosis, but hastens the spreading of the process. Ectopic pregnancy is also seen with genital tuberculosis.—*Arch. f. Gyn.*, Vol. 88, 29.

THEODORE J. GRAMM, M. D.

A MODIFICATION OF ESBACH'S TEST.—The fact that Esbach's test requires 24 hours for its reading, has led Dr. Kwilecki (*Munchener med. Wochenschrift*, 1909, No. 26) to search for a time modification which would permit its use in the office. According to his method 2 pro M. determination of albumin in urine is obtainable in about two minutes; a larger quantity requiring 5-6 minutes. His patented apparatus is used as is the Esbach tube. It is filled to the mark U with urine, which must be acid and ten drops of a 10% ferric chlorid solution is added and gently mixed. The tube is then filled to R with Esbach's solution, well corked, and not too violently shaken. In the meantime water is heated to about 72° C, and the tube is placed in it, after removing the dish from the flame, the water being about 1 cm. higher than the level of the liquid in the tube. Immediately the albumen begins to fall; the overlying stratum becomes clear, and in the time mentioned the quantitative results may be read off.

Monthly Retrospect

OF HOMOEOPATHIC MATERIA MEDICA AND THERAPEUTICS

CONDUCTED BY A. LEIGHT MONROE,
Miami, Florida.

THYROIDIN FOR NOCTURNAL ENURESIS.—The *Lancet* in May contained a record by Dr. Williams of a most instructive series of cases of nocturnal enuresis. In one very troublesome case of this complaint the doctor was led to give thyroid extract with great, indeed complete, success. Encouraged by this result, he tried the remedy upon other cases and achieved more successes, although failing signally in one instance. Noticing that concomitantly with the cessation of the trouble the general health frequently improved, he gave thyroid extract to a patient who had never suffered from nocturnal enuresis, but was otherwise in poor health. To his astonishment, the drug which had formerly cured enuresis now caused it in a most marked and aggravated form. From this excellent demonstration of the law of similars Dr. Williams deduces very sound conclusions with regard to the necessity of beginning with a small dosage, and maintains his opinion that had he given a less quantity the one failure of his series might well have been another success. We congratulate him on his cases and his conclusions. The particular symptom of enuresis is not in our pathogenesis of thyroidin, but may now be added, and Dr. Williams has sufficiently demonstrated its homœopathicity to that condition. A letter was addressed to the *Lancet* mentioning that this ability of a drug to cure a condition it could also cause, is a more generally possessed property than is recognized, but although the word homœopathy was not mentioned the letter was not inserted.—*The Homœopathic World*.

A NEW MINERAL SALT—CHLORODIODE OF CALCIUM AND SODIUM. —Julio F. Convers, M. D. Wishing to please many of my colleagues, who use frequently the mineral salts of our organs as remedies and are anxious to know the progress in the method of the learned and ingenuous Dr. Schussler, of grateful memory, I resolved to prepare a double chloriodide of calcium and sodium, which up to to-day, has not been used by any physician or pharmacist.

There was wanted in the therapeutic camp an antiseptic substance, which was not poisonous as the bichloride of mercury nor of a disagreeable odor as carbolic acid and iodoform, and not costly as many other modern chemical preparations.

The salt which I have prepared is without any of these disadvantages and its action as antiseptic is, if not superior, at least equal to the chlorides of lime and sodium so well known, from time immemorial, as powerful antiseptics and bactericides. I do not believe that the modern thera-

peutics is reduced to kill microbes, because all maladies are not infectious and even in these cases one must choose all the remedies suitable to the objective and subjective symptoms; but I believe that, in the hygienic and prophylactic treatment, must be of principal importance the aseptic and antiseptic, especially when treating surgical affections.

This chloriodide is a white salt, of astringent and salt savor, of faint odor like chlorine of alkaline reaction, slightly caustic. It is soluble in water and deliquescent, less soluble in alcohol; saponifies the fats, crystallizes into white sheets, pearly and brilliant.

It is not written of in any of the works of pharmacy or of chemistry that I know; but, as the properties of the chlorides and iodides are known, by induction, the double salt can be applied in many protracted chronic affections.

It is known that the chlorides of our organism facilitate the phenomenon of osmosis in the tissues and that they form electrolytes with the electric currents originated by the chemical combinations realized in the cellules and the liquid intercellulaires; we know that the carbonate of lime, which we take with our food, is transformed into chloride in the presence of the hydrochloric acid of the gastric juice and, soon afterwards, when it assimilates, is converted into phosphate of lime under the influence of the biphosphates that circulate in the blood.

The chlorides mentioned accelerate the digestion by transforming the insolubles, mineral substances, into soluble salts and by regularizing the functions of the muriatic acid; from here comes the general use of common salt with the meals. The earth, where *natrum muriaticum* is abundant, is more fertile than that where it does not exist and in these it is necessary to apply the common salt to the domestic animals.

The iodine and the iodides have similar therapeutic properties in themselves, they are anti-rheumatic, anti-scurfulous, and anti-tuberculous.

Dr. Rabuteau, in his "Therapeutique," says that the iodide of lime produces very good effects in tuberculosis, because it is changed into phosphate of lime and iodine; that it increases the appetite and diminishes the sweats. Dr. Suffert says in his "Formulaire" that the *calcareia iodata* is quicker and more intense in its action than the *calcareia phosphorica*.

As it is seen, I have made only a slight sketch of the very important therapeutic properties of the chloriodide and its components; but it promises to be very useful in the clinical camp, because it is composed of two chlorides and two iodides which have a notable influence in the physiological and pathological functions of our organism.

Bogota, Colombia, South America, April, 1909.

THUJA OCCIDENTALIS.—Thuja is hardly known in general medicine. It has, in poisonous or large doses, produced abortion and gastro-enteritis, and has been found to have a special affinity for warts and condylomata. Thuja was proved by Hahnemann and re-proved by the Austrian provers. Its main influence is on the genito-urinary organs. It produces inflammation of the urethra and pains in the genital organs, sweat of the genitals, warts and condylomata. There may be pus in the urine, and even sugar. The prostate is inflamed and there is irritation at the neck of the bladder; urine comes in a small stream. Thuja has an affinity for acrid leucorrhœa.

The periods are scanty and tend to come on too soon; there is pain in the left ovary, worse on the first day. Burning pains and itching round the anus, fig warts and condylomata. Dr. Dudgeon proved thuja on himself, and it produced an acute urethritis resembling gonorrhea.

In the skin thuja causes warts, tuberos growths, and papillomata. It has been used for warts and new growths in the skin, even for epitheliomata. It may be applied locally to warts as well as given internally. Marshal Dadetsky was cured of cancer in the thigh by means of thuja. Brown stain of the skin. It has some relation to small-pox, having produced a pustular eruption resembling that of smallpox, for which complaint it was first used by Boenninghausen. Dr. Burnett disclosed a close relationship between thuja and vaccinosis, especially chronic disorders resulting from vaccination. Its relationship to gonorrhea and to warty growths has placed thuja in the front rank of anti-sycotics.

Gonorrhea is considered to be a chronic miasm which corresponds to the sycosis of Hahnemann, and Dr. Allen holds that vaccination is a means of spreading this sycotic taint through the community, and that when thuja antidotes the effects of vaccination, it does so through its antisycotic powers. As illustrating the value of thuja in cases of vaccinosis, Dr. Wheeler related the case of a child suffering from a long-standing eczema of a very severe type, which first appeared shortly after vaccination, and to whom thuja 30 was given with immediate beneficial result. At the end of a week thuja was given again in a much lower dilution, with the result that a violent aggravation of the eczema occurred. On leaving off the thuja the aggravation subsided, and the eczema was in a short time entirely cured.

The mind is dejected, morose, quarrelsome; fixed ideas. The pains in the head are frontal or occipital, in spots, mostly left-sided, and are better in the open air. Scurfiness of the scalp. In the eye, conjunctivitis, tumors of the eye-lids. Clinically it has been found useful in syphilitic iritis. Polypus of the meatus of the ear. Chronic catarrh of the nose with greenish and fetid discharge. In the teeth, the base of the teeth close to the gums is the part that decays; pyorrhea alveolaris. Epulis. Ranula. Condylomata and mucous patches in the throat. No appetite for breakfast and unpleasant taste in the mouth. Dr. Cooper has worked out its sphere in gastro-intestinal disorders, and finds thuja indicated in dyspepsia in which there is flatulency, pain after food, sinking sensation at epigastrium before food, thirst, a clean tongue, and constipation. Dr. Clarke finds its sphere in dyspepsia the result of tea drinking, and considers it an antidote for tea poisoning in general. Thuja has been employed for polypus of the vocal cords, and also for asthma which is the result of chronic disease and where there is associated thirst.—*British Homoeopathic Review*.

ZINC ARSENIATE, 3x.—Chorea. For this condition of trophic disturbance of the blood and nervous tissues of the organism this is a remedy of promise, combining, as it does, a specific influence over the destructive tendency in the one and the instability in the other. Conditions especially calling for its use are marked deterioration of the general health with anemia in children, especially in chlorotic and nervously overtaxed school girls. Exhaustion, profound on the slightest exertion, is a predominating characteristic. There is also a great depression of spirits and marked in-

volvement of the lower extremities. It corrects the anemia and exerts a tonic effect in restoring the exhausted nerve cells.—*North American Journal of Homoeopathy for August.*

SABAL SERRULATA.—General and Sexual Debility. In the Saw Palmetto we have a remedy with valuable properties for promoting nutrition and tissue building. In sexual neurotics—those debilitated from sexual excesses, natural or from pernicious practices—it is of positive service. The appetite is increased and digestion and nutrition promoted. The languor, apathy and indifference, with appearance of debility, give way to vigor and alertness under the spur of its positive tonic properties. It is of especial value in young female neurotics, who from suppressed or perverted sexual inclinations, become anemic and run down. Often a valuable remedy in supplementing the good work of phosphoric acid in these cases. 15 to 20 drops of the tincture are given two or three times a day. Larger doses should not be given.—*North American Journal of Homoeopathy for August.*

THE TREATMENT OF ACNE ROSACEA.—Zeissl (*Munich, Med. Wchschrft*, Nov. 20, 1908). In a series of cases of acne rosacea the author succeeded in gradually removing the eruption by means of painting with undiluted iron chloride. The applications were repeated every morning and evening, and resulted in a complete cure. A somewhat solid crust is apt to form at the end of four or five days, and the painting should be omitted until this crust is cast off spontaneously. When there is much tension the surface may be covered with a clean rag that has been thickly spread with Wilson's salve or some other suitable ointment. In the presence of severe inflammation, an ice bag may be applied. As a rule, frequent interruptions are unavoidable, and the treatment is therefore likely to last about three or four months until the cure is complete.

ASTHMA AND ADRENALIN.—The Retrospect Editor saw recently, a severe attack of asthma relieved by a hypodermic of ten drops of adrenalin after all usual remedies had failed. The subject was a young married woman and she was thrown into a hysterical condition with heart palpitation for some minutes before relief came. Two subsequent attacks were just as effectually relieved by four drops of the adrenalin without drug aggravation. We should have thorough provings of adrenalin.

RUTA GRAVEOLEUS IN RECTAL CARCINOMA.—In the August *Homoeopathic World*, Dr. Le Hunter Cooper gives some remarkably favorable results from the treatment of rectal carcinoma with Ruta Graveoleus.

RANDOM NOTES.—This reminds us of a very pleasant chat with Dr. S. M. Schell, of Hamilton, Ohio, who, after speaking very highly of the book, *New, Old and Forgotten Remedies*, (that mention is a sly advertisement of our book), got to talking of this class of remedies that need proving. He said that Skookum chuck was one of the best general remedies we have for hay fever. Now this bears out the partial proving of Dr. Gentry made when he brought the drug to notice twenty years ago. "The first effect produced," he wrote, "was a profuse coryza with constant sneezing, as in hay fever." This is also further confirmed by the men who handle the salts, who say they produce a burning in the nose with sneezing and hay fever symptoms. Dr. Schell also spoke highly of *Latrodectus mac-*

tans, introduced by Dr. Samuel A. Jones, for angina pectoris. He also said that in Eupion we have a fine remedy for those who have cramps in the legs when they go to bed. Then, too, each decade, as Rademacher learned, may need new remedies. There is plenty of work to do for all.

Several writers contend that sweet milk is not good in typhoid as it is a culture medium. Buttermilk is better when relished. Whether there is anything in it is the question, depends, as usual, perhaps, on the individuality of the patient.

Phytolacca is claimed as a specific, by some doctors, in epithelioma—skin cancer. The cerate of *Phytolacca decandra folia* is especially commended in this disease as dressing. As its name indicates, it is a cerate medicated with the juice of the leaves of the plant, which the old herb men claimed was far better in this ailment than a preparation made from the more poisonous roots.

Echinacea, Kali phos., and Lachesis seem to have a similar thread running through them, infection, bad blood, malignancy.

Nymphœa odorata suppositories have been termed the "vegetable curette." They will do no harm to the most delicate and often give the greatest satisfaction to patient and doctor.

The extract of *Phytolacca* berries is used for its claimed anti-fat properties, it being claimed a better preparation for fatty heart than a preparation from any other part of the plant. It is also claimed valuable in membranous croup. Steeped in gin or brandy the berries form a popular home remedy for chronic rheumatic affections. The inspissated juice from the leaves is preferred for local applications, but the recent fall-gathered root carefully dried is the part usually employed.—Dr. M. T. Bellencourt, Gladwater, Texas, in *Ellingwood's Therapeutist*.

SYMPHORICARPUS.—In July *Recorder*, Dr. H. D. Baldwin says: "I have used *Symphoricarpus Racemosa* with great satisfaction in many cases of nausea accompanying pregnancy."

CINA AND WORMS.—Dr. Lopez, in a recent journal (the name escapes us) protests against our habit of limiting the use of Cina to the treatment of worms and cites some clinical cases where the drug acted brilliantly though no worms were present. Dr. Lopez is right, it is a constant fight with the busy practitioner to sidestep routinism. All busy doctors get into it to some extent. Cina for worms, Nux for indigestion, Cantharis for painful urination, Mercurius for syphilis, etc., but in the proportion as we become scientists our growth homœopathward stops.

The symptoms of Cina like those of its sister of the *compositæ* chamimella, are the nervous reflexes of intestinal irritation and their totality will be cured if it is indicated, whatever the anterior cause has been.

Mothers often say, "Doctor, I gave the Cina and my child got well, but I examined the discharges carefully without being able to find any worms." In that case the reflexes came from some other cause or after being destroyed the worms so changed—perhaps digested—by the intestinal juices as to be unrecognizable.

SANGUINARIA.—Neuralgia in upper jaw extending to nose, eye, ear and neck, and side of the head; shooting, burning pains; must kneel down and hold head tightly to the floor.—R. B. Johnstone, M. D., *Homœo. Phys.*, 1889.

FOREIGN LITERATURE

CONDUCTED BY E. FORNIAS, M. D.

ANALYSES.—*The Venom of the Serpents and the Salamanders*.—Edmond Perrier presented, in the name of Madame Phisalix, a memorandum relative to the mechanism of immunity possessed by serpents *vis-a-vis* the poison of batrachians, and particularly *vis-a-vis* the poison of the land-salamander.

From the minute researches of Mme. Phisalix we learn that the venom itself, contained in the glands and blood of the vipers and snakes, is what protects them. It can, even if mixed with *salamandrine*, defend such sensitive animals as the guinea-pig against the convulsive and mortal effect of this substance. It is to the physiological antagonism between the *echidno-toxine*, paralyzing substance of the poison and of the blood of the viper, and the *salamandrine*, convulsive substance of the milky poison of the salamander, that the serpents owe their immunity, but not to a chemical neutralization of the poison.

Salamandrine which, according to so many reports, compares so well with *strychnia*, especially with its action on the poison of the viper, has been highly commended and applied by Mueller (1888) in Australia, to combat those paralytic manifestations to which the bites of serpents owe their seriousness.—*Le Progres Medical*.

Salamander Poison.—A poisonous substance that formed an antitoxine was discovered by Phisalix, in the skin of the back of the Japanese salamander (*Sieboldia maxima*). The poison is soluble in water and glycerin, and possesses little stability. It is completely destroyed by 20 minutes' exposure to a temperature of 60° C., and also by alcohol.

It produces *odema* and areas of *hemorrhage* in the frog, and in warm-blooded animals *necroses* also. *Paralysis* also occurs, and the excitability of the nerves is gradually lost. *Death* results from *paralysis of the respiratory system*.

The poison is weakened by being heated to 50° C., but still retains its immunising power. Animals thus treated can then resist much larger doses, not only of this poison, but also of viper-venom and eel's-blood poison, whence we may conclude that it has a certain degree of relationship with these toxins.—*Act. phys. venin du Salamandre, Soc. Biol.* 1897.

Hay Fever.—Dr. Bonnier considers that in the determination of attacks of hay fever, the pollen of the *gramineous plants* play only a very accessory and limited role. Physiologically, this *recurrent conjunctivitis with nasal catarrh*, consists of a paroxysmal exaltation of the mucous secretions, due to general excitements, slight, but which we may call *idiosyncrasic*. It is thus, that certain individuals, not affected by the pollen of the *gramineous plants*, become highly so under the influence of the pollen of *marigold*, of *lily of the valley*, or *ipecac*. Other persons are influenced by

rice powder, certain odors, certain strong lights, or winds, &c. A diathesis, so constituted seems to be frequently nothing but a manifestation of the *neuro-arthritic constitution*. It is in reality a diathesis, side by side with other diatheses, in a bulb that has lost its equilibrium.

Experience has amply demonstrated that our pharmacopia is powerless to regulate these diathetic strains. On the other hand, anything that blunts the peripheric irritation of the *trigeminus*, such as *carbonic acid*, or *adrenalin*, gives a momentary relief to the patient.

If one examines the nasal mucosa during a threatening attack, and touches certain defined points, the attack breaks out immediately. A *cauterization as superficial and slight as possible* of these points usually overcomes the reflex susceptibility of the mucosa and definitely gives back to the bulbar centres their functional equilibrium. And if one avoids too strong application of the cautery, the effect may be immediate. It is the indiscriminate manner of cauterizing these points that has brought discredit to a rational and very efficacious method.—*Academie des Sciences, Seance du 21 Juin, 1909.*

LUPUS.—A *granulation tissue* of small round cells develops in the true skin and causes patches which tend to spread and undergo fatty degeneration; thin pale scars result, which do not pucker the surrounding skin. *Lupus erythematous* specially involves the *sebaceous glands* about the face, the affected area of which is much congested and infiltrated; some scalliness and incrustation may be noted; the orifices of the *sebaceous glands* are very noticeable by reason of their being plugged with sebum. It looks something like *acne rosacea*. *Lupus non-exedens* consist in the development of fleshy lumps in the skin of the face and nose; it is common in the young, the tissue is very vascular and gelatinous; it is regarded as a *local tuberculosis*; it is not liable to suppurate, and never ulcerates. If much ulceration occurs the disease is called *exedens*.

The new growth, says Money, should be scraped away, but not if there is much tenderness and redness; if these symptoms exist the air should be excluded by some soothing lead application. If the *lupus* is superficial and slight, the application of zinc and lead ointments may be sufficient to cure the disease.

Malcom Morris, of London, says that *lupus erythematous* seems to be essentially a chronic inflammation of the skin, local at the start, and dependant on circulatory conditions, of vaso-motor troubles. The *treatment* according to this authority, should be *general* or constitutional and local. The general treatment consists principally of a severe regimen, excluding all and everything that may burden or overload the intestines with matters capable of furnishing a favorable soil for infection of the digestive canal. He thinks *quinine* is frequently useful. *Locally*, and during the hyperæmic stage, he recommends *cooling lotions and ointments of sub-acetate of lead*. He considers *Ichtyol*, under the form of lotions or pomades the most useful of the local topics. In *chronic* cases, this authority has found that the best remedy is the constant application of *strong solutions of ichtyol*. In *severe cases* the *lineal scarifications* or the *slight touches of the thermocautery* give often good results.

Malcom Morris has sometimes employed with success in *sub-acute cases* the high frequency currents, and in *chronic cases* Finsen's method and X-rays. These physical agents are particularly useful in *inveterate cases* in

which there is thickening of the integuments. *Radium* can be used with success in limited cases.

Square-linear scarifications in the treatment of lupus vulgaris, and in particular in the treatment of lupus vulgaris of the nose.—From 1900 to 1906, Dr. Brocq, of Paris, the eminent dermatologist, has systematically refused to treat personally *lupus vulgaris* or *exedens*. He placed his cases in the hands of other physicians, who were requested to employ the new methods recently praised, and particularly *phototherapie* and *radiotherapie*. He meant in this way to form a clear idea of the real practical value of these methods.

From this long and impartial observation he believes himself able to conclude that these new methods are very efficacious; that they may be employed in numerous cases, when possible, but that they never will exclude entirely the old treatments.

With respects to the different forms and localizations of *lupus vulgaris*, we must, of course, select the convenient therapeutic expedient; one cannot be here systematic. It is frequently even useful to combine different procedures in a given case to obtain the cure more promptly. It is exactly what Prof. Brocq intended to do in 1886, when he commended so highly what he then called the mixed-method.

In the treatment of *lupus vulgaris*, however, whenever possible, the preference should be given to an extended surgical ablation. But in very extended cases of the malady, he advises to scrape off deeply the parts nucleating thoroughly all the prolongations, no matter how small, then cauterize completely with chloride of zinc, or with the red hot iron, and finally dress with iodoform.

When any of these two treatments is impossible, Prof. Brocq advises the employment of *phototherapie* for the *lupus of the forehead, of the temple, of the protuberant part*, and especially of the cheek, which is really the method to be preferred for *slight cases of lupus of the last of these regions*.

The *scarification*, when well-made, heals *lupus-vulgaris*, but it produces scars as marked as those of *Finsen-therapie*. On account of the necessity of operating over the whole surface of the lesion, and more or less deeply, according to the involvement of the tissues, *scarification* is only applicable to those cases which are not very extensive, and it is not very efficacious unless the malady is developed in thin integuments resting upon a resisting plain, as in *nasal lupus*.

Taking into consideration the number of sittings required, it is not practical, unless it is indispensable to cure the lesion with as little scars and atresia as possible, as when we treat *lupus of the lips, of the eyelids, and of the nostrils*. *Scarification* is, in fact, the preferable treatment for *lupus circumscriptus* and *lupus ulceroso of the nose*. In these cases it is superior to any method known. It acts better and quicker than any other procedure and by its application we can obtain unusual repairs of the affected parts.—*Le Progres Medical*.

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